

Chapter 5

VHA Health Services Utilization By Rural Veterans (Inpatient Encounters)

A Rural Veterans Health Care Atlas Series
2nd Edition - FY 2015

PRODUCED BY THE
GeoSPATIAL OUTCOMES DIVISION
VHA OFFICE OF RURAL HEALTH
U.S. DEPARTMENT OF VETERANS AFFAIRS





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OVERVIEW

The previous chapter defined and briefly described the term encounter and then focused on numbers and percentages of outpatient encounters in VA facilities as well as those in non-VA facilities. Here in Chapter 5 an examination of encounters taking place in an inpatient setting was conducted. Again, utilization of health care services by those VHA patients in *highly rural, rural, insular island (R/HR/I)* areas- with their home address location based on the RUCA system of rurality- are addressed specifically. In addition to overall figures, specific subgroups of patient encounters, including gender, age, race, and service era, are also reported at the National, State/Territory and county levels.

Process of Data Compilation

Using the VHA Support Service Center (VSSC), the Diagnosis Cube was the data repository where inpatient encounter data (from VA and non-VA providers) as of EOFY-2015 were extracted. The Pyramid Analytics application was used to extract these data, which provides analysis of diagnoses as measured by unique patients and frequency of occurrence¹. Occurrences were queried on a broad level and then drilled down to specific parameters, entered in different combinations to present various scenarios:

Measures: Frequency (or the number of occurrences of the ICD9 code)

DXDate Fiscal Year: FY15-EOY

Home County: State, County

Rurality: All Rurality, Highly Rural, Insular Islands, Rural, Urban, Unknown

Source Category: Fee Inpatient, Fee Outpatient, VA Inpatient, VA Outpatient

Gender: All Gender, Female, Male, Unknown

Age Group: All Age Group, <25, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+, Unknown

Race: American Indian or Alaskan Native, Asian, Black or African American, Declined to Answer, Multiple, Native Hawaiian or Other Pacific Islander, Unknown, White

OEF_OIF: OEFOIF, Non-OEFOIF



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Subsequent data analyses, such as calculating percentages based on those numbers and combining age groups, were performed in MS Excel after raw data was extracted, resulting in the chapter data tables. ESRI ArcGIS Desktop 10.3 was used to import the tabular data to create custom maps, which are presented at the State/Territory and county levels.

For VA Inpatient Encounters, the tabular data is broken down by rows of State/Territory and FIPS codes (county level geographic units), and then by columns of the following:

- Counts of Inpatient Encounters by a VA facility or provider and the percentage to all types of encounters
- Counts and percentages of those encounters by patients living in R/HR/I areas, with R/HR/I combined into RHRI for the purposes of patient confidentiality
- Counts and percentages of R/HR/I VA Inpatient Encounters *by gender (male and female)* compared to total R/HR/I VA Inpatient Encounters (R/HR/I/U/total), with R/HR/I combined into RHRI for the purposes of patient confidentiality
- Counts and percentages of R/HR/I VA Inpatient Encounters *by age groups (LT45, 45_to_64, 65_to_74, GE75)* compared to total R/HR/I VA Inpatient Encounters (R/HR/I/U/total), with R/HR/I combined into RHRI for the purposes of patient confidentiality
- Counts and percentages of R/HR/I VA Inpatient Encounters *by race (White, Black, Other*)* compared to total R/HR/I VA Inpatient Encounters (R/HR/I/U/total), with R/HR/I combined into RHRI for the purposes of patient confidentiality
(*NOTE: The 'other' race category includes American Indian or Alaskan Native, Asian Hawaiian or Other Pacific Islander, and those who answered multiple race categories)
- Counts and percentages of R/HR/I VA Inpatient Encounters *by service era (OEFOIF)* compared to total R/HR/I VA Inpatient Encounters (R/HR/I/U/total), with R/HR/I combined into RHRI for the purposes of patient confidentiality

For Non-VA Care (otherwise known as 'Fee') Inpatient Encounters, the tabular data is broken down by rows of State/Territory and FIPS codes (county level geographic units), and then by columns of the following:

- Counts of Inpatient Encounters by a non-VA facility or provider (Fee) and the percentage to all types of encounters
- Counts and percentages of those encounters by patients living in R/HR/I areas, with R/HR/I combined into RHRI for the purposes of patient confidentiality



- Counts and percentages of R/HR/I Fee Inpatient Encounters *by gender (male and female)* compared to total R/HR/I Fee Inpatient Encounters (R/HR/I/U/total), with R/HR/I combined into RHRI for the purposes of patient confidentiality
- Counts and percentages of R/HR/I Fee Inpatient Encounters *by age groups (LT45, 45_to_64, 65_to_74, GE75)* compared to total R/HR/I Fee Inpatient Encounters (R/HR/I/U/total), with R/HR/I combined into RHRI for the purposes of patient confidentiality
- Counts and percentages of R/HR/I Fee Inpatient Encounters *by race (White, Black, Other*)* compared to total R/HR/I Fee Inpatient Encounters (R/HR/I/U/total), with R/HR/I combined into RHRI for the purposes of patient confidentiality
(*NOTE: The 'other' race category includes American Indian or Alaskan Native, Asian Hawaiian or Other Pacific Islander, and those who answered multiple race categories)
- Counts and percentages of R/HR/I Fee Inpatient Encounters *by service era (OEFOIF)* compared to total R/HR/I Fee Inpatient Encounters (R/HR/I/U/total), with R/HR/I combined into RHRI for the purposes of patient confidentiality



Organization of Data Tables and Maps

The organization of the data tables and maps displaying Inpatient encounters is organized into 3 sections. The first section (Section I) focuses Inpatient encounters with or at VA health care facility. We first present an overview of the data at the National and U.S. State/Territory levels. Table 1 contains the data with number of all VA Inpatient encounters, then broken down by each of the following rurality categories: *highly rural*, *rural*, *insular island*, *urban*, and *unknown*. Since the R/HR/I categories are of particular interest in this volume, numbers and percentages are distinctively highlighted in shades of blue in Table 1. While Table 1 provides VA Inpatient encounter information by National and State/Territory and rurality (including numbers and percentages of *urban* and *unknown*), the State/Territory and county maps remove the *urban* and *unknown* VA Inpatient encounter data and focus solely on encounters by the R/HR/I population. Following the table, four maps visually illustrate the data.

- Map 1: Number of VA R/HR/I Inpatient Encounters by State/Territory, EOFY-2015
- Map 2: Percent VA R/HR/I Inpatient Encounters of All VA Inpatient Encounters by State/Territory, EOFY-2015
- Map 3: Number of VA R/HR/I Inpatient Encounters by County, EOFY-2015
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Section II provides information on specific subgroups of R/HR/I patients who had an inpatient encounter in a VA health care setting, specifically: gender, age categories, race, and service era. Table 2 displays the information by State/Territory, and then calculates a grand total at the bottom representing National-level aggregation. The subsequent maps illustrating these patterns geographically are as follows:

- Map 5: Number of Male VA R/HR/I Inpatient Encounters by State/Territory, EOFY-2015
- Map 6: Percent Male VA R/HR/I Inpatient Encounters as a Percentage of All VA R/HR/I Inpatient Encounters by State/Territory, EOFY-2015
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- Map 25: Number of VA R/HR/I Inpatient Encounters Aged 75 and Older by State/Territory, EOFY-2015
- Map 26: Percent VA R/HR/I Inpatient Encounters Aged 75 and Older as a Percentage of All VA R/HR/I Inpatient Encounters by State/Territory, EOFY-2015
- Map 27: Number of VA R/HR/I Inpatient Encounters Aged 75 and Older by County, EOFY-2015
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Encounters by County, EOFY-2015

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Section III provides overall encounter information where a patient with a diagnosis of a medical condition was evaluated or treated at a non-VA medical facility on an inpatient basis. This information is broken down by rurality and displayed in tabular form at the National and State/Territory level in Table 3. Table 4 then provides information on subgroups of these same patients living in R/HR/I areas, specifically: gender, age categories, race, and service era. The same methodology and process used to generate the tables and maps for inpatient encounters in the VA was also applied to those encounters with patients in a non-VA clinical setting. The maps that geographically portray the information in Tables 3 and 4 are as follows:

- Map 37: Number of Non-VA Care R/HR/I Inpatient Encounters by State/Territory, EOFY-2015
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- Map 56: Percent Non-VA Care R/HR/I Inpatient Encounters Aged 65 to 74 as a Percentage of All Non-VA Care R/HR/I Inpatient Encounters by State/Territory, EOFY-2015
- Map 57: Number of Non-VA Care R/HR/I Inpatient Encounters Aged 65 to 74 by County, EOFY-2015
- Map 58: Percent Non-VA Care R/HR/I Inpatient Encounters Aged 65 to 74 as a Percentage of All Non-VA Care R/HR/I Inpatient Encounters by County, EOFY-2015
- Map 59: Number of Non-VA Care R/HR/I Inpatient Encounters Aged 75 and Older by State/Territory, EOFY-2015



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- Map 60: Percent Non-VA Care R/HR/I Inpatient Encounters Aged 75 and Older as a Percentage of All Non-VA Care R/HR/I Inpatient Encounters by State/Territory, EOFY-2015
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Section I: Inpatient Encounters in the VA

National Overview

At the end of Fiscal Year 2015 (EOFY-2015), the number of inpatient encounters performed in the VA health care system or by a VA medical provider totaled over 30 million (or about 11.41% of all types of encounters). Of that number, nearly 8.8 million, just about a third (29.06%), were by patients who lived in R/HR/I areas. The remaining Inpatient encounters outside rural areas totaled just over 21 million (Table 1).

State/Territory Overview

Of all U.S. States and Territories, the State of Texas had the largest number of R/HR/I inpatient encounters in a VA health care setting (N=654,696). VA inpatient encounters by those patients living in R/HR/I areas in Texas represented 29.51% of its total number of VA inpatient encounters. Other States with high numbers of R/HR/I VA inpatient encounters included (in rank order): Arkansas (N=424,402), Ohio (N=381,427), Florida (N= 370,106), North Carolina (N= 367,176), Missouri (N=347,519), New York (N=310,858), Kentucky (N=304,370), Virginia (N=289,245), and Wisconsin (N=282,807). As a portion of the total number of VA inpatient encounters, the State of Vermont, with a total count of 79,784, had the highest percentage of R/HR/I inpatient encounters at 92.74%. Montana followed closely behind with 85.24% of their VA inpatient encounters by patients living in R/HR/I areas. Montana had a total of 103,700 VA inpatient encounters in EOFY-2015, and of that number, 88,394 of those were R/HR/I. Other States also showed a high percentage of R/HR/I VA inpatient encounters included: Maine (81.65%), U.S. Virgin Islands (75.24%), Wyoming (67.62%), South Dakota (65.58%), New Hampshire (60.7%), West Virginia (56.49%), Oklahoma (56.15%) and Iowa (52.94%). State/Territory Maps 1 and 2 are presented by quartile for volume and percentage of VA inpatient encounters by those Veteran patients residing in R/HR/I areas. Comparing the two maps show that the State of Kentucky is the only U.S. State in the upper 25% quartile (darkest orange shade) in terms of number as well as proportion of VA inpatient encounters by R/HR/I Veteran patients.



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County Overview

Kennebec County, Maine, with 60,374 R/HR/I Inpatient encounters by a VA provider or a VA health care facility, ranked the highest among all counties in the U.S. in EOFY-2015. Other counties with the highest number of R/HR/I Inpatient encounters by a VA provider or a VA health care facility included (in rank order): Leavenworth County, Kansas (N=44,428), Monroe County, Wisconsin (N=43,875), Columbia County, Florida (N=42,006), Ross County, Ohio (N=41,658), Pima County, Arizona (N=39,637), Lewis and Clark County, Montana (N=34,142), Harrison County, West Virginia (N=33,486), Laurens County, Georgia (N=31,666), and Muskogee County, Oklahoma (N=31,085). County Maps 3 and 4 are presented by quartile for volume and percentage of VA R/HR/I inpatient encounters.



Table 1: VA Inpatient Encounters by Rurality, EOFY-2015

U.S. State	Total Number of All Encounters	VA Inpatient Encounters				
		TOTAL	Rurality			
		N	R/HR/I	%	Urban & Unknown	%
Alabama	4,725,449	454,396	170,728	37.57	283,668	62.43
Alaska	920,490	10,726	5,665	52.82	5,061	47.18
Arizona	6,152,886	648,497	154,312	23.80	494,185	76.20
Arkansas	4,404,227	815,175	424,402	52.06	390,773	47.94
California	18,788,531	2,218,629	255,675	11.52	1,962,954	88.48
Colorado	4,285,984	302,579	55,146	18.23	247,433	81.77
Connecticut	2,195,244	245,583	20,948	8.53	224,635	91.47
Delaware	652,454	50,010	7,239	14.48	42,771	85.52
District of Columbia	484,556	75,081	336	0.45	74,745	99.55
Florida	24,319,909	2,917,020	370,106	12.69	2,546,914	87.31
Georgia	8,159,168	859,735	269,657	31.37	590,078	68.63
Hawaii	1,109,862	30,587	6,411	20.96	24,176	79.04
Idaho	1,724,451	179,535	63,759	35.51	115,776	64.49
Illinois	8,602,045	1,260,026	275,950	21.90	984,076	78.10
Indiana	5,358,795	468,179	176,112	37.62	292,067	62.38
Iowa	2,952,195	325,222	172,183	52.94	153,039	47.06
Kansas	2,804,062	435,122	176,364	40.53	258,758	59.47
Kentucky	4,685,357	579,459	304,370	52.53	275,089	47.47
Louisiana	4,189,001	305,512	120,818	39.55	184,694	60.45
Maine	1,618,133	212,729	173,699	81.65	39,030	18.35
Maryland	3,529,388	361,292	41,831	11.58	319,461	88.42
Massachusetts	3,907,775	541,772	25,004	4.62	516,768	95.38
Michigan	6,281,934	740,214	241,758	32.66	498,456	67.34
Minnesota	4,775,341	492,969	200,675	40.71	292,294	59.29
Mississippi	3,091,610	393,522	205,836	52.31	187,686	47.69
Missouri	6,553,493	877,537	347,519	39.60	530,018	60.40
Montana	1,662,822	103,700	88,394	85.24	15,306	14.76
Nebraska	1,950,989	214,842	73,772	34.34	141,070	65.66
Nevada	3,521,592	402,528	60,028	14.91	342,500	85.09



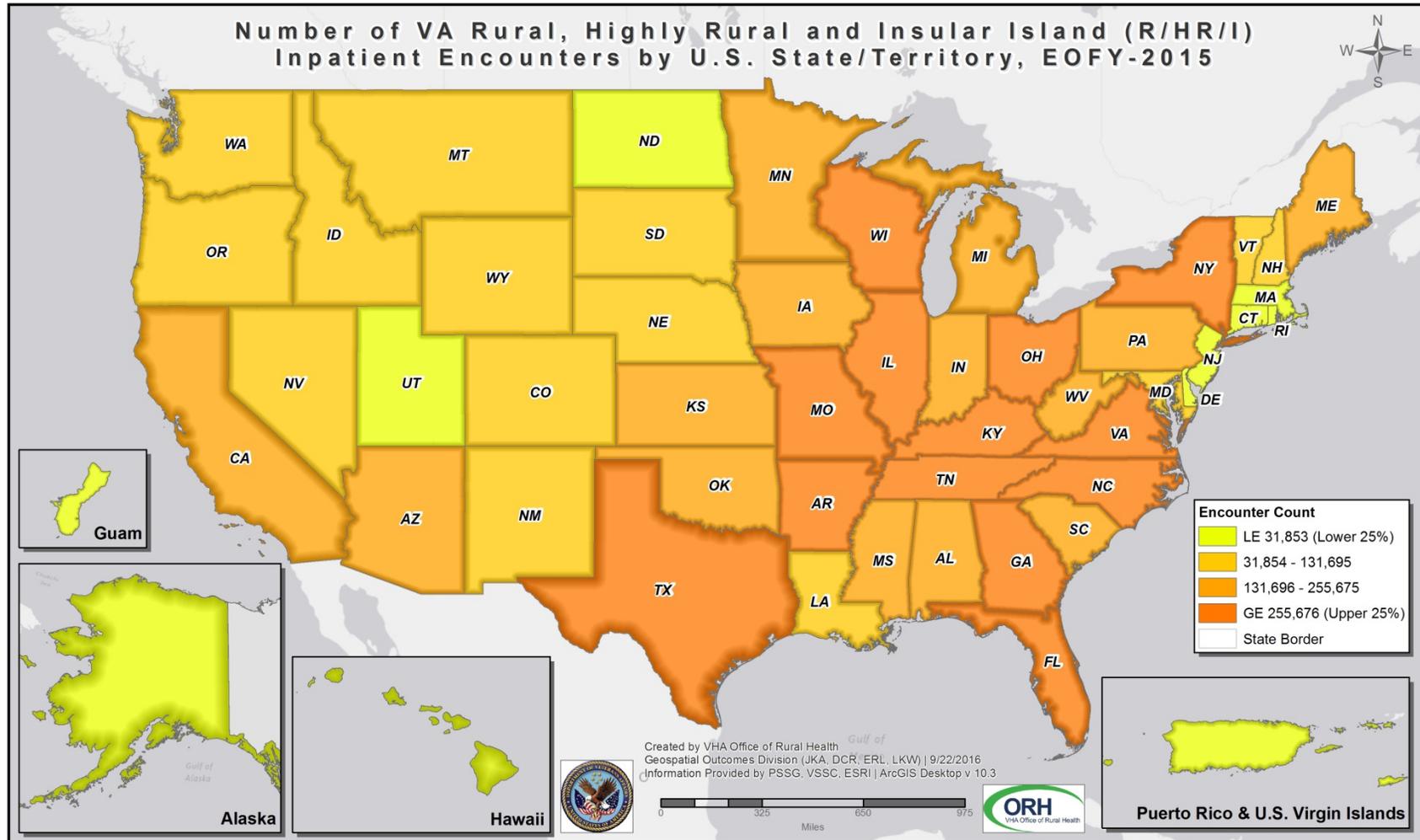
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U.S. State	Total Number of All Encounters	VA Inpatient Encounters				
		TOTAL	Rurality			
		N	R/HR/I	%	Urban & Unknown	%
New Hampshire	1,284,222	114,871	69,725	60.70	45,146	39.30
New Jersey	2,914,303	280,208	18,444	6.58	261,764	93.42
New Mexico	2,255,859	212,834	76,471	35.93	136,363	64.07
New York	10,958,932	1,551,959	310,858	20.03	1,241,101	79.97
North Carolina	9,288,198	925,902	367,176	39.66	558,726	60.34
North Dakota	690,898	63,097	29,979	47.51	33,118	52.49
Ohio	11,419,809	1,257,049	381,427	30.34	875,622	69.66
Oklahoma	3,732,794	445,491	250,134	56.15	195,357	43.85
Oregon	4,049,315	315,454	131,695	41.75	183,759	58.25
Pennsylvania	9,725,572	1,182,548	253,116	21.40	929,432	78.60
Rhode Island	899,629	113,782	6,234	5.48	107,548	94.52
South Carolina	5,169,084	496,117	178,837	36.05	317,280	63.95
South Dakota	1,551,691	168,333	110,388	65.58	57,945	34.42
Tennessee	6,375,139	793,762	262,165	33.03	531,597	66.97
Texas	19,230,023	2,218,642	654,696	29.51	1,563,946	70.49
Utah	1,882,062	218,181	31,853	14.60	186,328	85.40
Vermont	621,057	79,784	73,991	92.74	5,793	7.26
Virginia	6,432,606	790,213	289,245	36.60	500,968	63.40
Washington	4,705,262	337,084	73,846	21.91	263,238	78.09
West Virginia	3,229,567	428,115	241,858	56.49	186,257	43.51
Wisconsin	5,437,742	686,480	282,807	41.20	403,673	58.80
Wyoming	911,394	99,228	67,101	67.62	32,127	32.38
U.S. Outlying Territories						
American Samoa	742	30	0	0.00	30	100.00
Federated States of Micronesia	482	0	0	0.00	0	0.00
Guam	168,226	1,329	34	2.56	1,295	97.44
Marshall Islands	156	0	0	0.00	0	0.00
Northern Mariana Islands	8,040	303	0	0.00	303	100.00
Palau	46	0	0	0.00	0	0.00
Puerto Rico	3,471,970	394,779	11,251	2.85	383,528	97.15
U.S. Virgin Islands	45,552	5,298	3,986	75.24	1,312	24.76
*Unassigned State/Territory	4,471,007	470,264	101,669	21.62	368,595	78.38
TOTAL	264,339,122	30,173,315	8,767,683	29.06	21,405,632	70.94



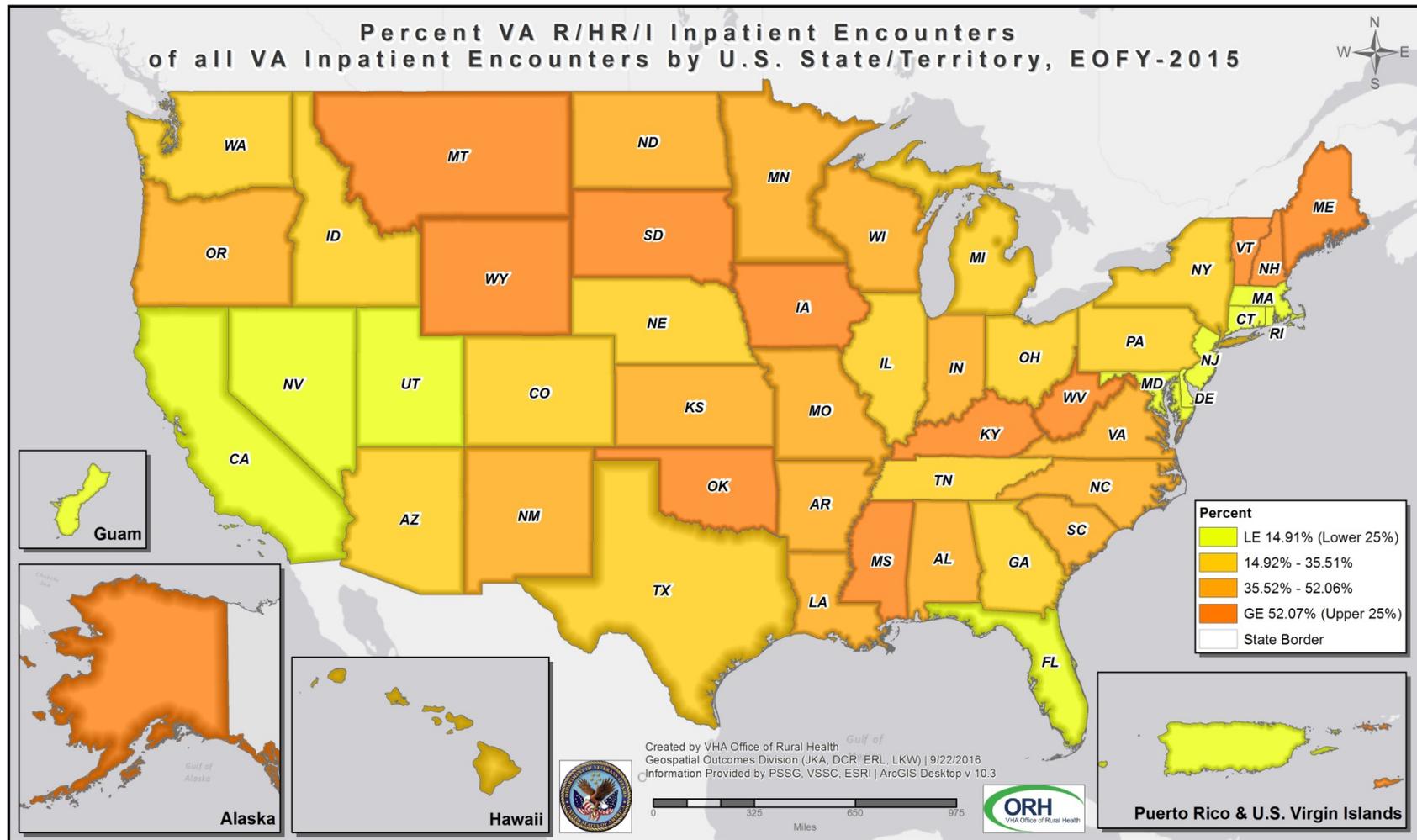
Map 1



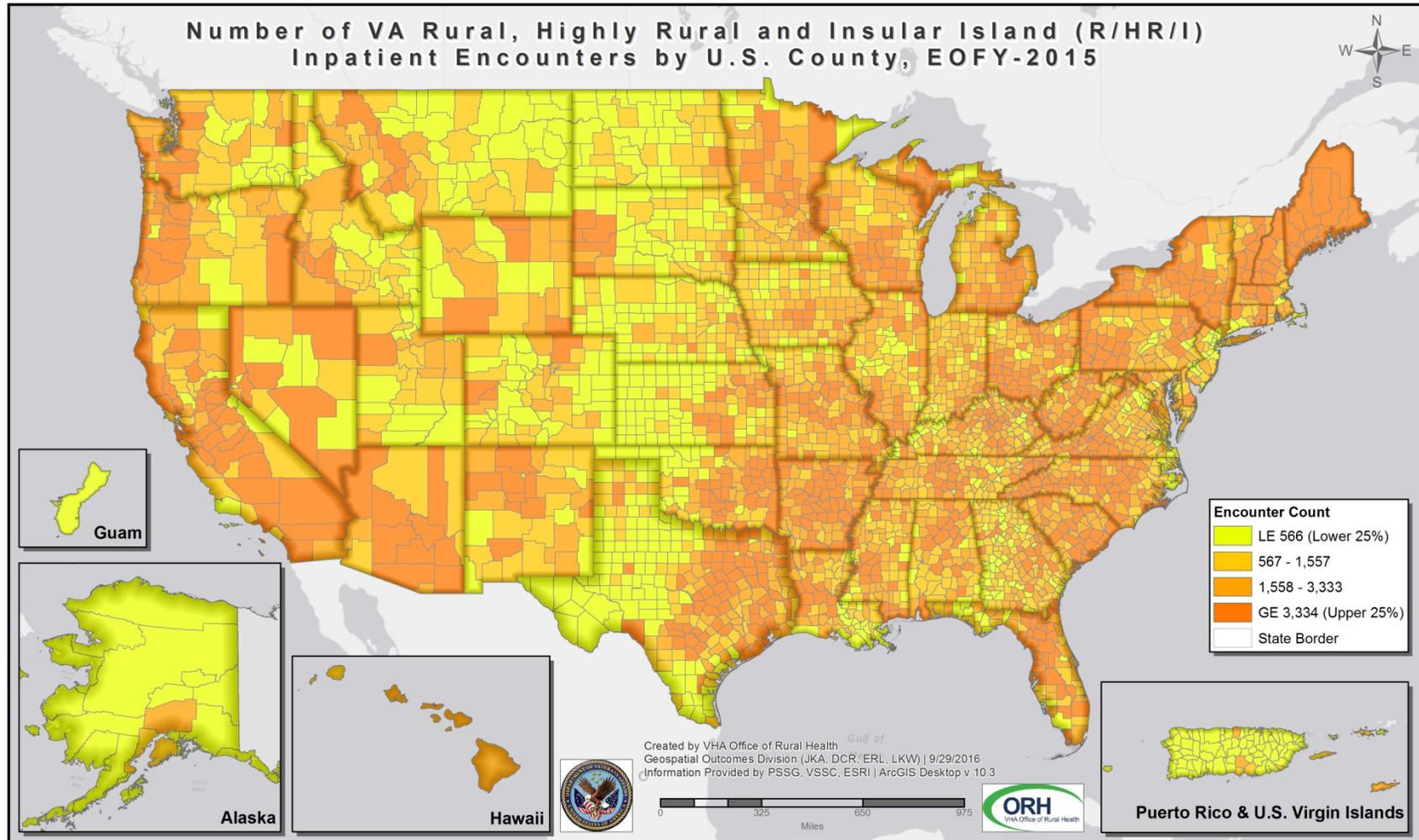
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 2



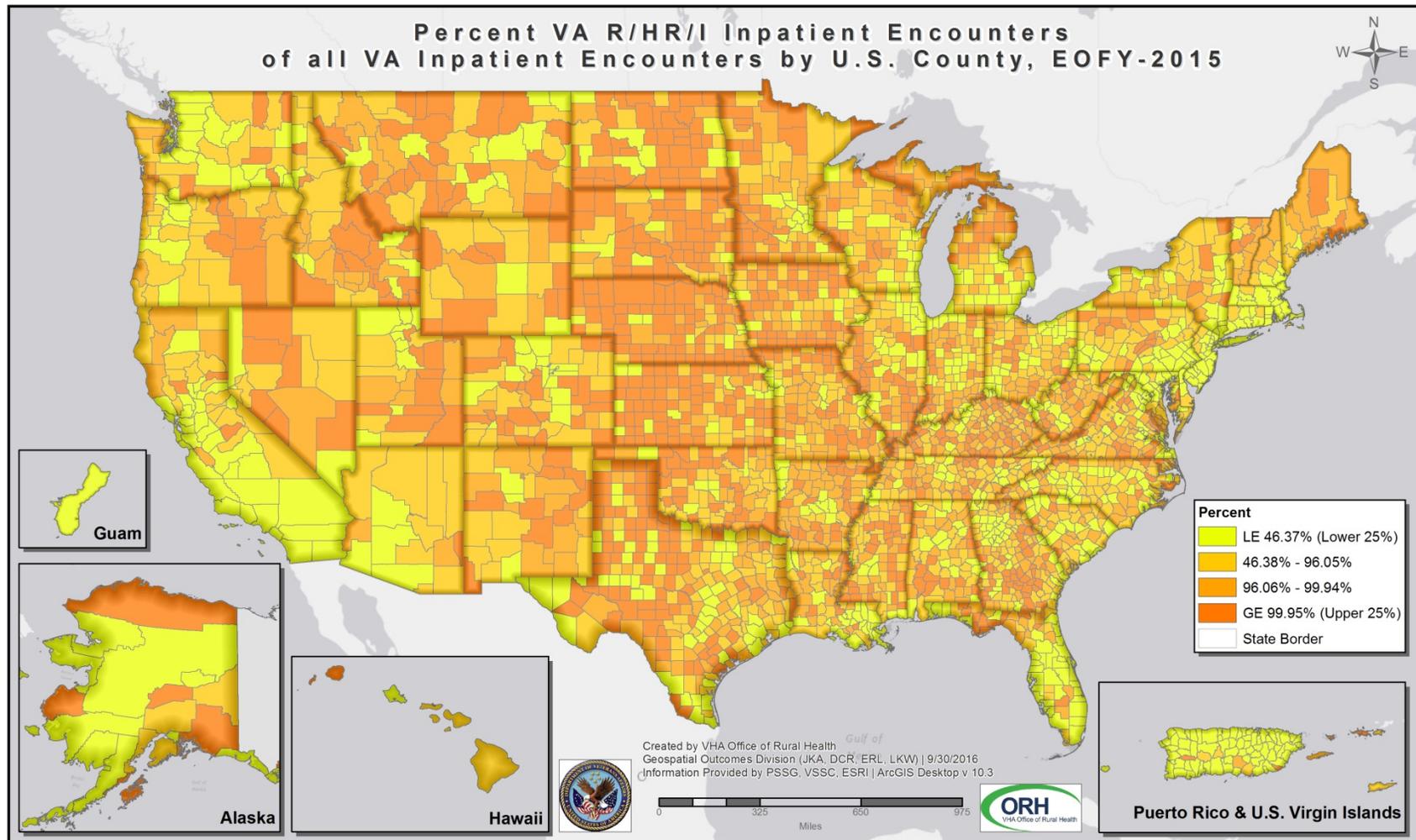
Map 3



Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 4



Section II: Inpatient Encounters in the VA for Combined Rural (R/HR/I) Subgroups

GENDER

Table 2 further illustrates VA Inpatient Encounters by R/HR/I patients in each U.S. State/Territory, broken down by patient gender (number and percentage).

MALES

On the national level, VA encounters in an inpatient setting by male patients in R/HR/I areas comprised an overwhelming 95.73% of the total number of VA inpatient encounters. The States/Territories with the greatest percentages of these types of male patients, which exceed the national overall percentage, included: Guam (100.0%), Rhode Island (98.8%), North Dakota (98.69%), Puerto Rico (97.86%), Connecticut (97.5%), Kentucky (97.32%), Minnesota (97.29%), New Jersey (97.02%), Tennessee (97.0%), and West Virginia (97.0%).

The map series from Map 5 to Map 8 provide visual displays of the numbers and percentages of VA inpatient encounters by R/HR/I male Veteran patients at the State/Territory and County levels. The highest 25% in terms of volume and proportion are designated by the darkest shade of orange. Four of the U.S. States/Territories, as shown on Maps 5 and 6, had both a high volume and high proportion (in upper 25% quartile) of male VA R/HR/I inpatient encounters as a percent of all VA R/HR/I Inpatient encounters. Those were Kentucky, Tennessee, Virginia and Wisconsin.



Health Services Utilization By Rural Veterans (Inpatient Encounters)



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**Table 2: VA Rural, Highly Rural & Insular Island (R/HR/I) Inpatient Encounters
by Gender, Age Group, Race, and Service Era, EOFY-2015**

U.S. State	R/HR/I VA Inpatient Encounters	Gender (%)		Age Group (%)					Race (%)				Service Era (%)	
		F	M	<45	45-54	55-64	65-74	75+	White Cauc	Black Afr Am	Other*	Missing	OEF/OIF	Other
Alabama	170,728	5.81	94.19	13.08	10.28	29.22	29.83	17.59	66.14	30.83	3.03	2.86	6.70	93.30
Alaska	5,665	6.81	93.19	7.08	11.49	40.67	20.65	20.11	96.18	0.00	3.82	2.38	8.51	91.49
Arizona	154,312	5.21	94.79	4.82	5.67	17.86	38.54	33.11	90.05	2.77	7.18	6.17	2.53	97.47
Arkansas	424,402	3.54	96.46	5.66	7.63	23.94	36.22	26.54	80.11	17.68	2.20	2.67	3.71	96.29
California	255,675	3.59	96.41	9.34	5.35	21.95	38.42	24.95	89.38	4.77	5.85	8.15	6.16	93.84
Colorado	55,146	4.78	95.22	6.79	6.79	21.28	41.35	23.80	94.78	0.84	4.38	5.87	4.79	95.21
Connecticut	20,948	2.50	97.50	9.16	7.66	18.37	45.49	19.32	94.88	1.66	3.46	0.58	5.30	94.70
Delaware	7,239	7.45	92.55	11.38	14.82	27.66	24.15	21.99	79.10	18.44	2.47	5.90	5.15	94.85
District of Columbia	336	63.39	36.61	0.89	10.71	82.74	0.00	5.65	5.65	94.35	0.00	0.00	0.00	100.00
Florida	370,106	4.85	95.15	5.44	8.20	23.60	36.70	26.06	85.43	11.83	2.74	4.65	3.21	96.79
Georgia	269,657	4.41	95.59	9.17	12.10	27.97	33.24	17.53	57.33	39.91	2.76	3.76	5.36	94.64
Hawaii	6,411	3.26	96.74	24.54	17.05	14.68	30.92	12.82	75.20	7.24	17.56	5.83	11.43	88.57
Idaho	63,759	6.93	93.07	7.37	9.74	17.83	39.05	26.01	96.65	0.55	2.80	10.17	5.99	94.01
Illinois	275,950	5.12	94.88	12.08	8.34	18.96	35.02	25.61	94.96	2.97	2.07	2.09	8.19	91.81
Indiana	176,112	3.41	96.59	8.94	8.62	22.00	35.96	24.48	96.35	2.32	1.33	2.49	5.39	94.61
Iowa	172,183	3.59	96.41	5.83	6.29	21.43	36.52	29.94	97.87	0.94	1.19	4.37	4.53	95.47
Kansas	176,364	6.57	93.43	16.47	12.47	23.43	31.33	16.31	89.03	7.70	3.26	2.84	10.90	89.10
Kentucky	304,370	2.68	97.32	6.28	7.45	20.07	35.73	30.47	93.83	4.94	1.23	2.12	3.99	96.01
Louisiana	120,818	5.80	94.20	14.58	8.09	26.34	30.42	20.58	61.19	35.40	3.41	4.09	9.33	90.67
Maine	173,699	4.36	95.64	5.08	6.02	19.06	37.84	32.00	95.14	0.41	4.45	3.59	3.50	96.50
Maryland	41,831	4.71	95.29	11.62	9.99	25.23	33.16	20.00	68.21	29.91	1.88	8.72	6.65	93.35
Massachusetts	25,004	7.27	92.73	21.70	13.12	15.27	31.32	18.59	94.13	2.61	3.26	0.96	13.81	86.19
Michigan	241,758	4.14	95.86	7.01	6.44	19.99	39.87	26.69	95.71	2.46	1.83	5.07	5.10	94.90
Minnesota	200,675	2.71	97.29	6.65	6.54	20.75	36.19	29.87	96.09	0.75	3.16	9.38	4.35	95.65
Mississippi	205,836	5.45	94.55	7.78	9.94	25.88	31.69	24.71	56.57	41.29	2.15	2.05	5.62	94.38
Missouri	347,519	4.03	95.97	7.74	8.03	23.29	36.18	24.76	94.12	3.80	2.08	2.84	5.52	94.48
Montana	88,394	6.81	93.19	6.64	6.47	21.47	36.80	28.62	94.24	0.14	5.63	4.20	4.75	95.25
Nebraska	73,772	4.52	95.48	6.28	4.40	21.65	42.30	25.36	94.40	1.88	3.71	1.73	5.63	94.37
Nevada	60,028	4.27	95.73	4.77	5.54	20.47	43.29	25.92	92.63	3.52	3.86	6.15	3.45	96.55

*Race-Other category includes American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, or Multiple (those who identify as more than one race)



U.S. State	R/HR/I VA Inpatient Encounters	Gender (%)		Age Group (%)					Race (%)				Service Era (%)	
		F	M	<45	45-54	55-64	65-74	75+	White Cauc	Black Afr Am	Other*	Missing	OEF/OIF	Other
New Hampshire	69,725	4.49	95.51	5.85	4.75	23.50	37.63	28.27	96.95	1.35	1.70	2.43	4.51	95.49
New Jersey	18,444	2.98	97.02	12.35	8.01	24.66	30.92	24.06	80.54	15.97	3.49	4.96	6.37	93.63
New Mexico	76,471	5.32	94.68	8.44	7.24	19.96	37.96	26.40	83.36	2.43	14.22	27.01	5.20	94.80
New York	310,858	4.82	95.18	5.56	6.61	18.30	38.26	31.27	93.86	3.87	2.28	2.70	3.06	96.94
North Carolina	367,176	4.77	95.23	8.20	9.21	24.29	36.59	21.71	72.94	23.70	3.36	1.68	5.93	94.07
North Dakota	29,979	1.31	98.69	5.88	8.05	18.18	43.03	24.86	94.18	0.29	5.53	9.02	5.38	94.62
Ohio	381,427	4.83	95.17	6.43	8.35	26.28	36.83	22.12	93.50	5.19	1.31	5.31	3.58	96.42
Oklahoma	250,134	4.39	95.61	8.61	6.86	22.17	36.46	25.88	85.70	5.20	9.10	3.43	6.42	93.58
Oregon	131,695	5.10	94.90	6.44	6.96	21.12	39.88	25.60	94.83	0.42	4.75	10.13	2.68	97.32
Pennsylvania	253,116	3.74	96.26	9.09	7.56	20.25	39.62	23.47	92.96	5.00	2.04	0.82	6.46	93.54
Rhode Island	6,234	1.20	98.80	9.51	8.20	7.25	50.50	24.54	100.00	0.00	0.00	0.32	3.05	96.95
South Carolina	178,837	4.12	95.88	6.37	8.17	23.06	38.14	24.26	56.01	41.28	2.72	4.79	4.30	95.70
South Dakota	110,388	4.74	95.26	3.08	8.54	18.38	32.63	37.37	90.84	0.40	8.76	7.94	1.49	98.51
Tennessee	262,165	3.00	97.00	9.36	9.54	23.01	36.28	21.81	87.03	11.32	1.65	5.28	7.35	92.65
Texas	654,696	3.76	96.24	5.93	6.09	24.07	37.36	26.56	85.87	11.07	3.06	5.76	3.44	96.56
Utah	31,853	3.60	96.40	6.62	7.70	20.57	35.16	29.95	97.90	0.75	1.35	1.20	5.11	94.89
Vermont	73,991	6.43	93.57	6.35	4.90	19.36	35.11	34.27	97.71	0.25	2.04	3.04	6.15	93.85
Virginia	289,245	3.17	96.83	8.20	9.47	21.20	36.55	24.58	74.12	22.92	2.96	7.01	5.71	94.29
Washington	73,846	5.29	94.71	6.64	7.61	19.11	43.10	23.54	93.48	1.92	4.60	8.13	4.94	95.06
West Virginia	241,858	3.00	97.00	6.86	4.96	16.35	37.89	33.93	94.34	3.09	2.57	1.25	4.28	95.72
Wisconsin	282,807	3.27	96.73	5.17	6.68	20.92	39.00	28.24	95.13	1.34	3.53	1.48	4.38	95.62
Wyoming	67,101	7.77	92.23	8.74	10.25	23.93	32.11	24.97	96.54	1.42	2.04	1.78	4.59	95.41
U.S. Outlying Territories														
American Samoa	0													
Micronesia	0													
Guam	34	0.00	100.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	100.00	0.00	100.00
Marshall Islands	0													
N. Mariana Islands	0													
Palau	0													
Puerto Rico	11,251	2.14	97.86	5.07	5.53	26.76	27.58	35.06	86.78	8.39	4.83	2.04	5.32	94.68
U.S. Virgin Islands	3,986	15.20	84.80	4.82	7.20	48.52	21.15	18.31	34.97	62.74	2.28	0.00	3.79	96.21
Unassigned State/Terr.	101,669	3.61	96.37	5.22	8.79	21.47	37.18	27.32	85.95	9.07	4.98	5.19	3.50	96.50
TOTAL	8,767,683	4.27	95.73	7.56	7.77	22.26	36.60	25.80	86.23	10.62	3.15	4.33	5.00	95.00

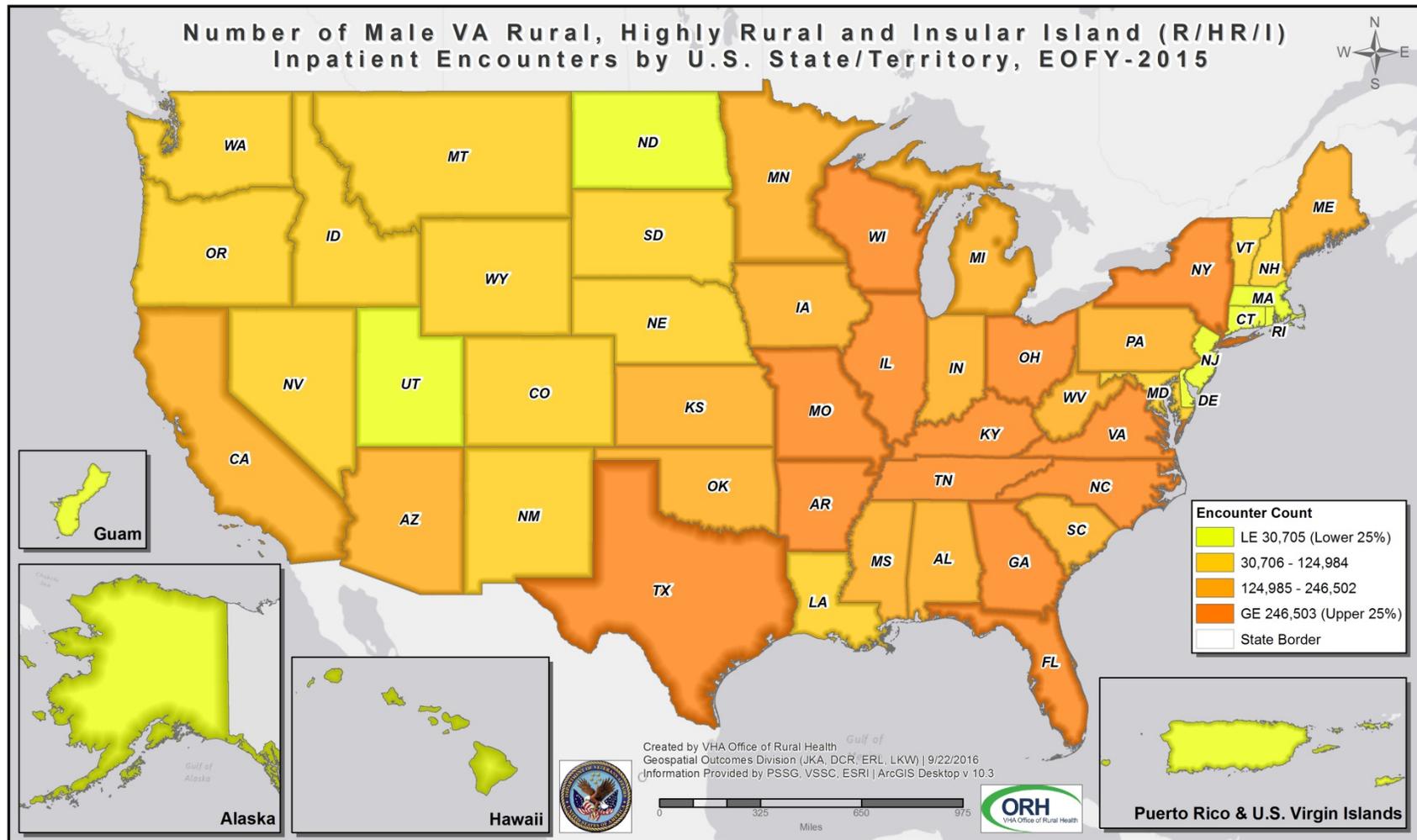
*Race-Other category includes American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, or Multiple (those who identify as more than one race)



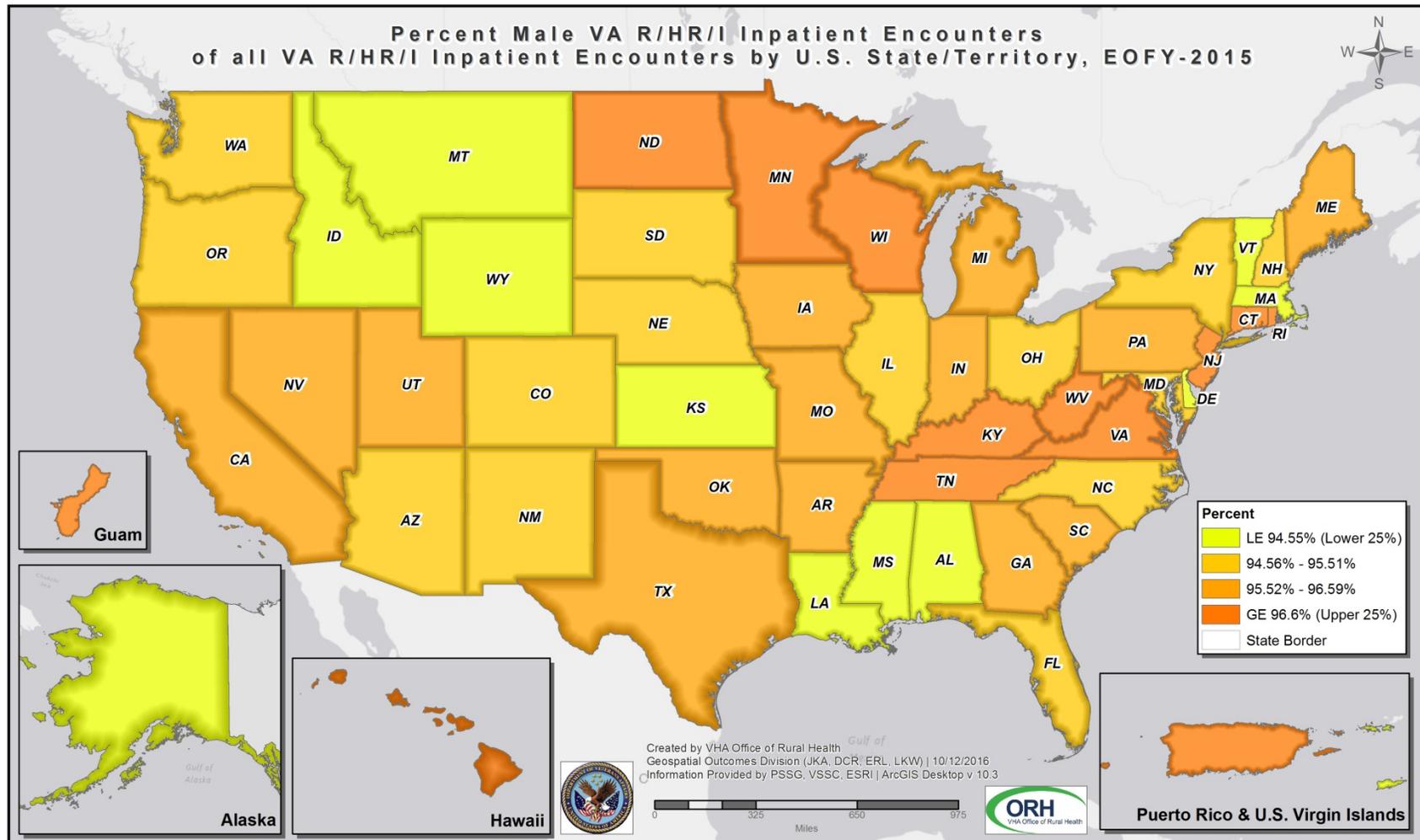
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 5



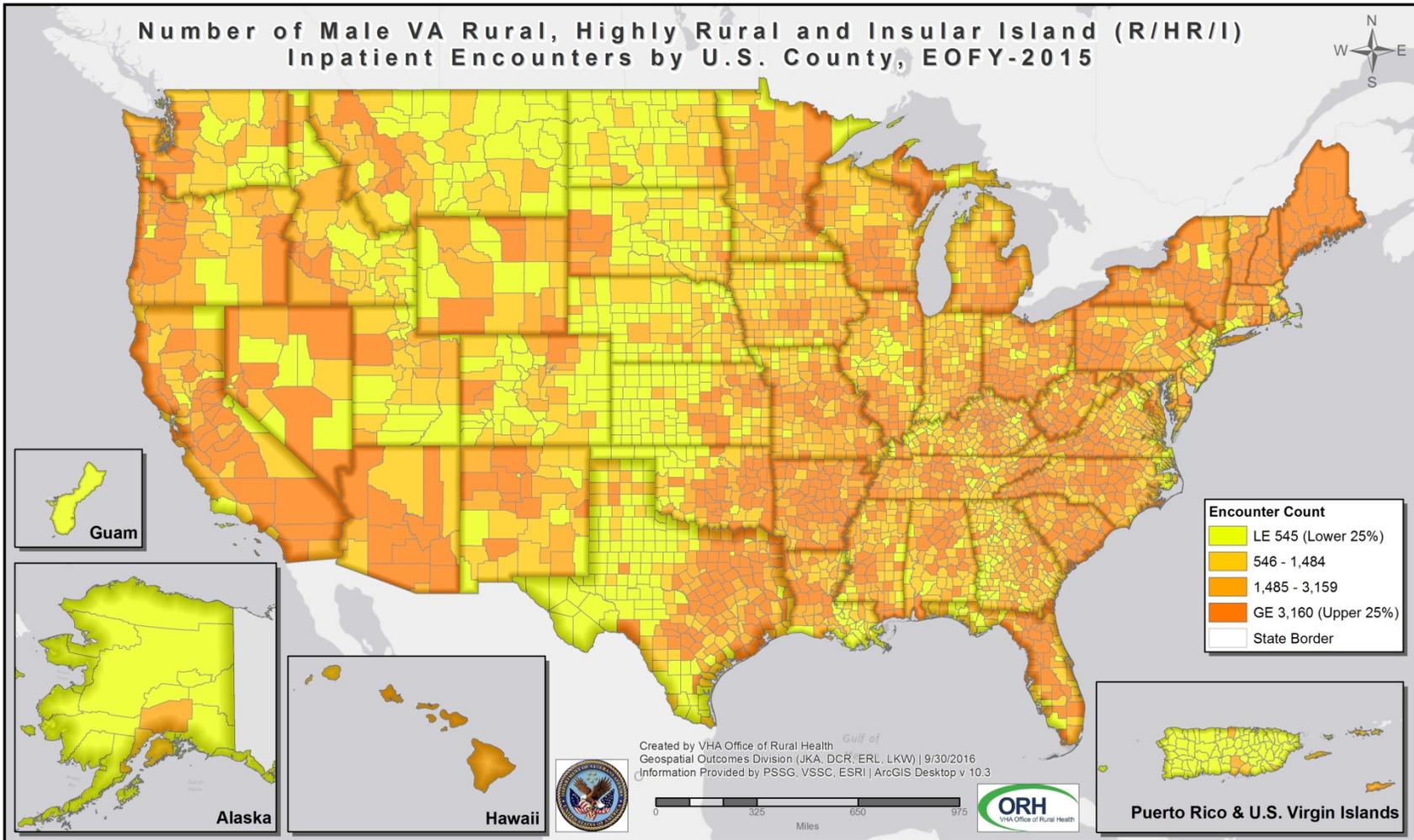
Map 6



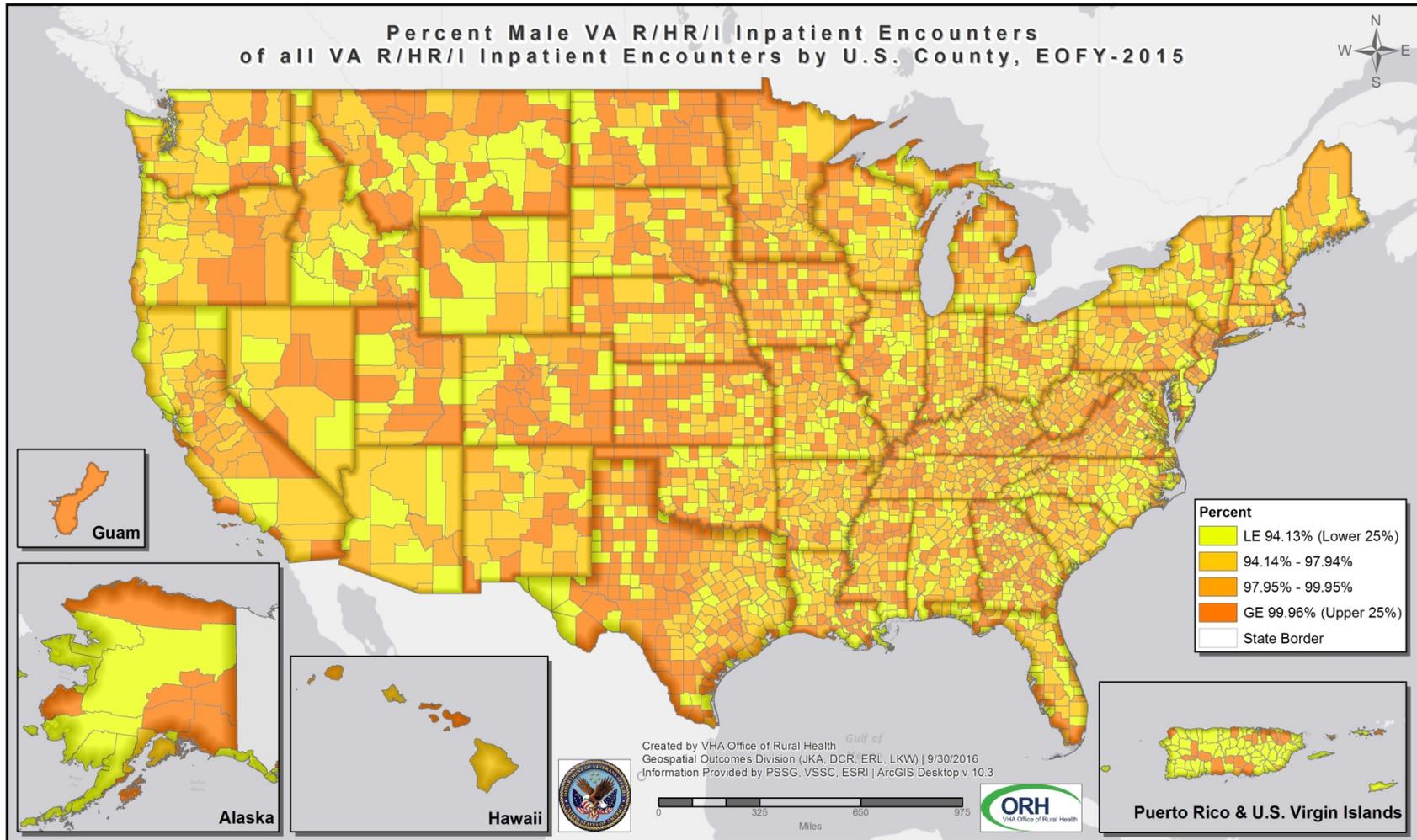
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 7



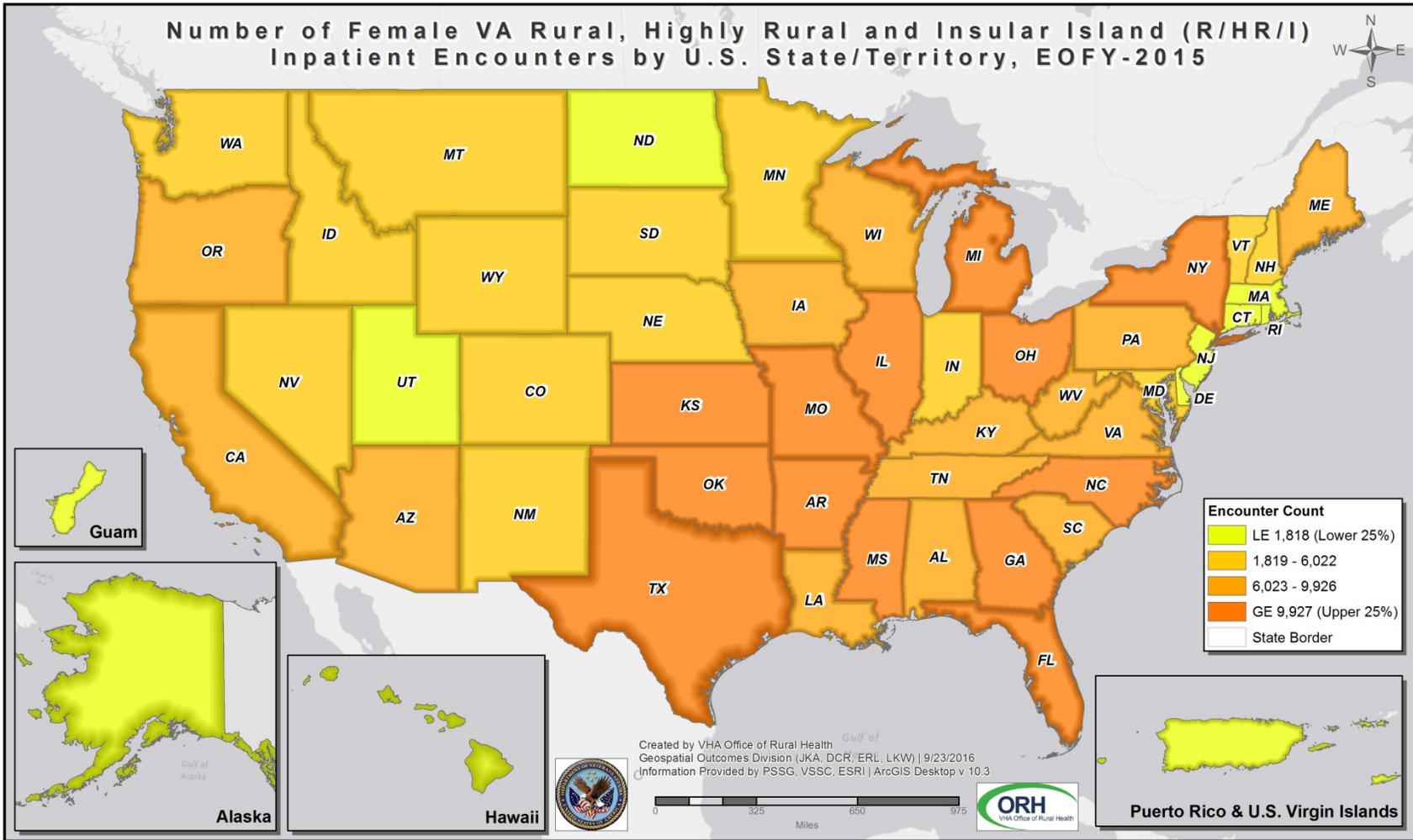
Map 8



FEMALES

Inpatient encounters by women living in R/HR/I areas comprised of a marginal 4.27% nationally of the total number of VA inpatient encounters. On the State/Territory level, the District of Columbia was ranked the highest with 63.39% of their 336 R/HR/I VA Inpatient Encounters by female patients- the only district to outnumber males. Other States/Territories that showed proportions of *greater than* six percent females, included: U.S. Virgin Islands (15.2%), Wyoming (7.77%), Delaware (7.45%), Massachusetts (7.27%), Idaho (6.93%), Alaska (6.81%), Montana (6.81%), Kansas (6.57%), and Vermont (6.43%).

The map series from Map 9 to Map 12 provide visual displays of R/HR/I female inpatient encounters by a VA provider or at a VA medical establishment, mapped out by State/Territory and County. In Maps 9 and 10, displayed by State, the highest 25% in terms of volume and percentage are designated by the darkest shade of orange. Kansas and Mississippi were the only U.S. States, had both a high volume and high proportion (in upper 25% quartile) of female VA R/HR/I inpatient encounters as a percent of all VA R/HR/I inpatient encounters. The county level maps 11 and 12 divided the data into two classes because many counties had a low number of females. Therefore, in an effort to protect confidentiality of patients, the county maps were generated to display the highest 50% in terms of volume and percentage, designated by the darkest shade of orange.



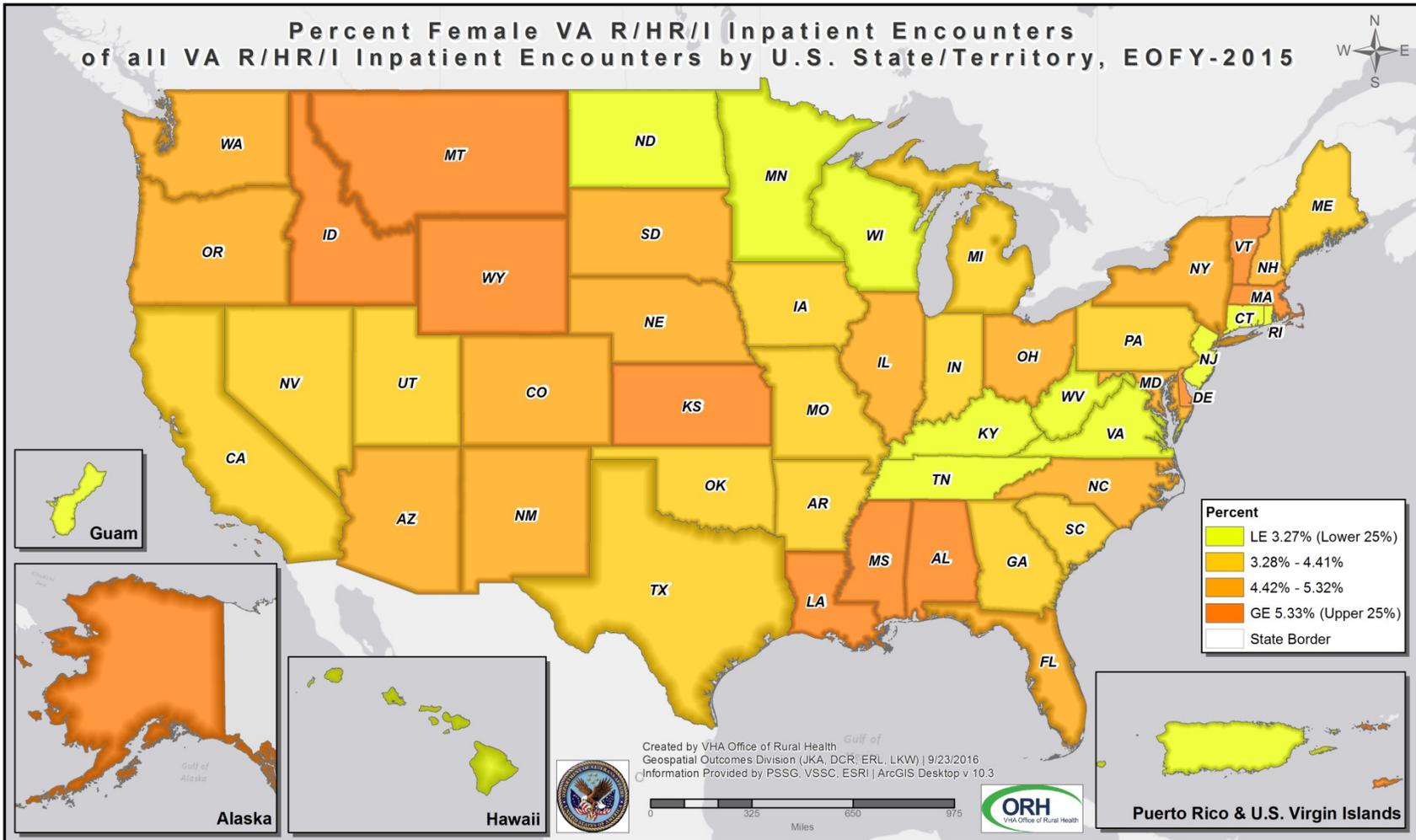
Map 9



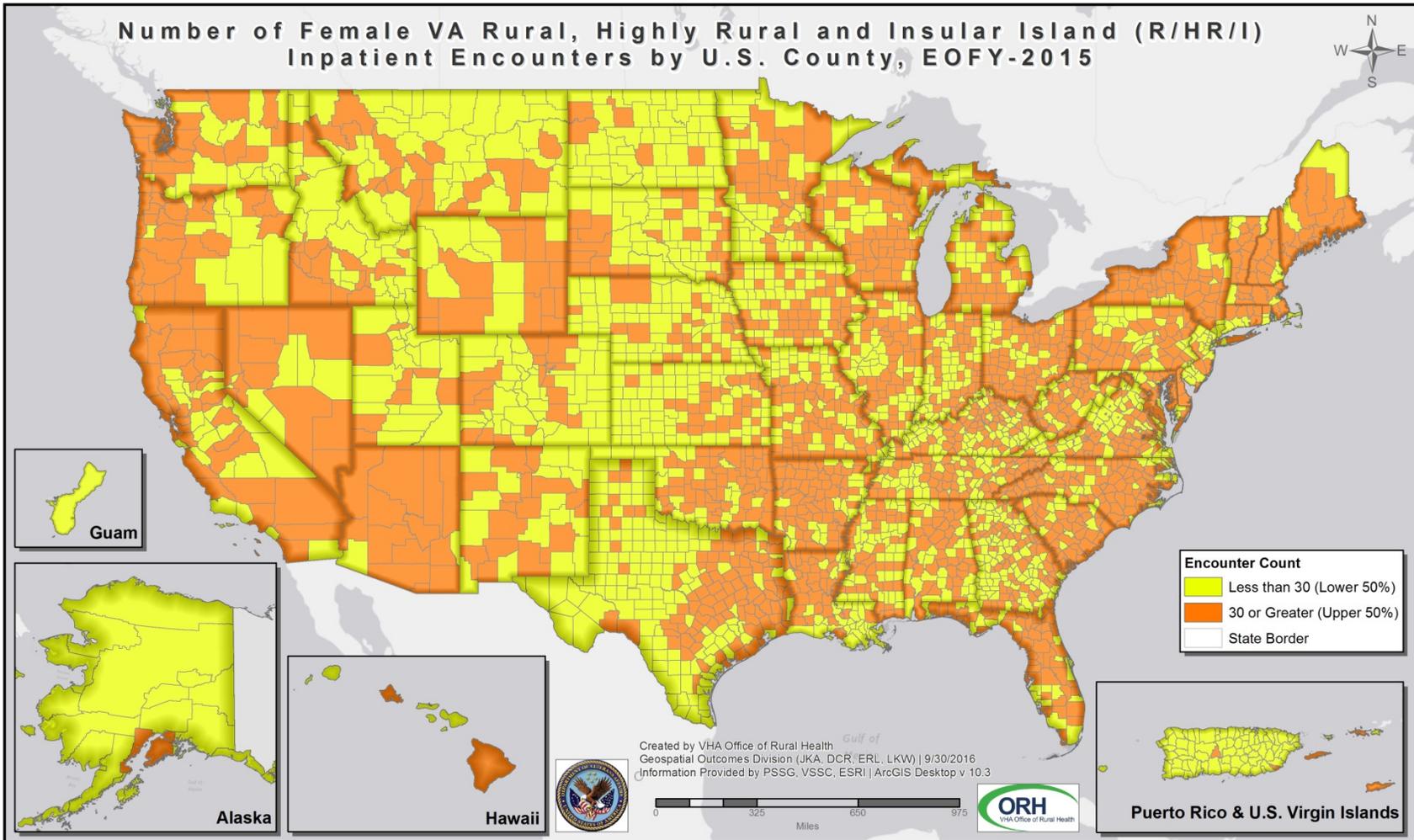
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 10



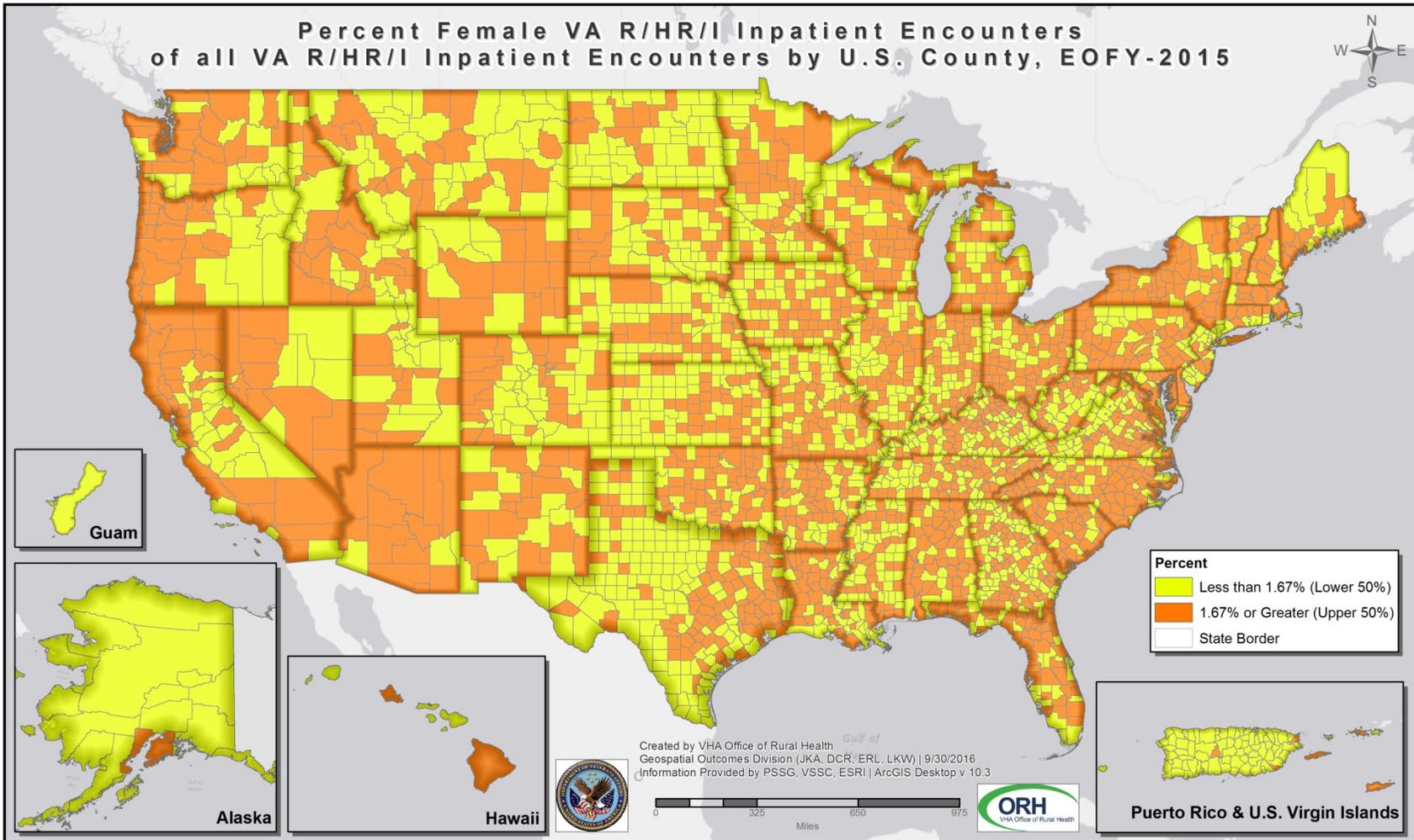
Map 11



Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 12



AGE GROUP

OVERALL

Table 2 shows that, nationwide, the 65-74 age group had the highest percentage of VA R/HR/I inpatient encounters (36.6%), and had the highest representation in most U.S. States/Territories as well. Several exceptions included: 1) Alaska, Delaware, District of Columbia, and U.S. Virgin Islands, where encounters in the age 45-64 group had more representation, and 2) Puerto Rico and South Dakota, where there were more VA inpatient encounters in the over the age of 75 category. All VA inpatient encounters by R/HR/I patients below age 55 were least represented nationally (ages 45 to 54 at 7.77%, followed by those under the age of 45 at 7.56%).

UNDER THE AGE OF 45

On the national level, VA inpatient encounters by R/HR/I patients *under the age of 45* comprised 7.56% of the total number of all VA R/HR/I inpatient encounters. The top 10 States/Territories with the greatest percentage of these younger patients, which exceeded the national overall percentage, included: Hawaii (24.54%), Massachusetts (21.7%), Kansas (16.47%), Louisiana (14.58%), Alabama (13.08%), New Jersey (12.35%), Illinois (12.08%), Maryland (11.62%), Delaware (11.38%), and Rhode Island (9.51%).

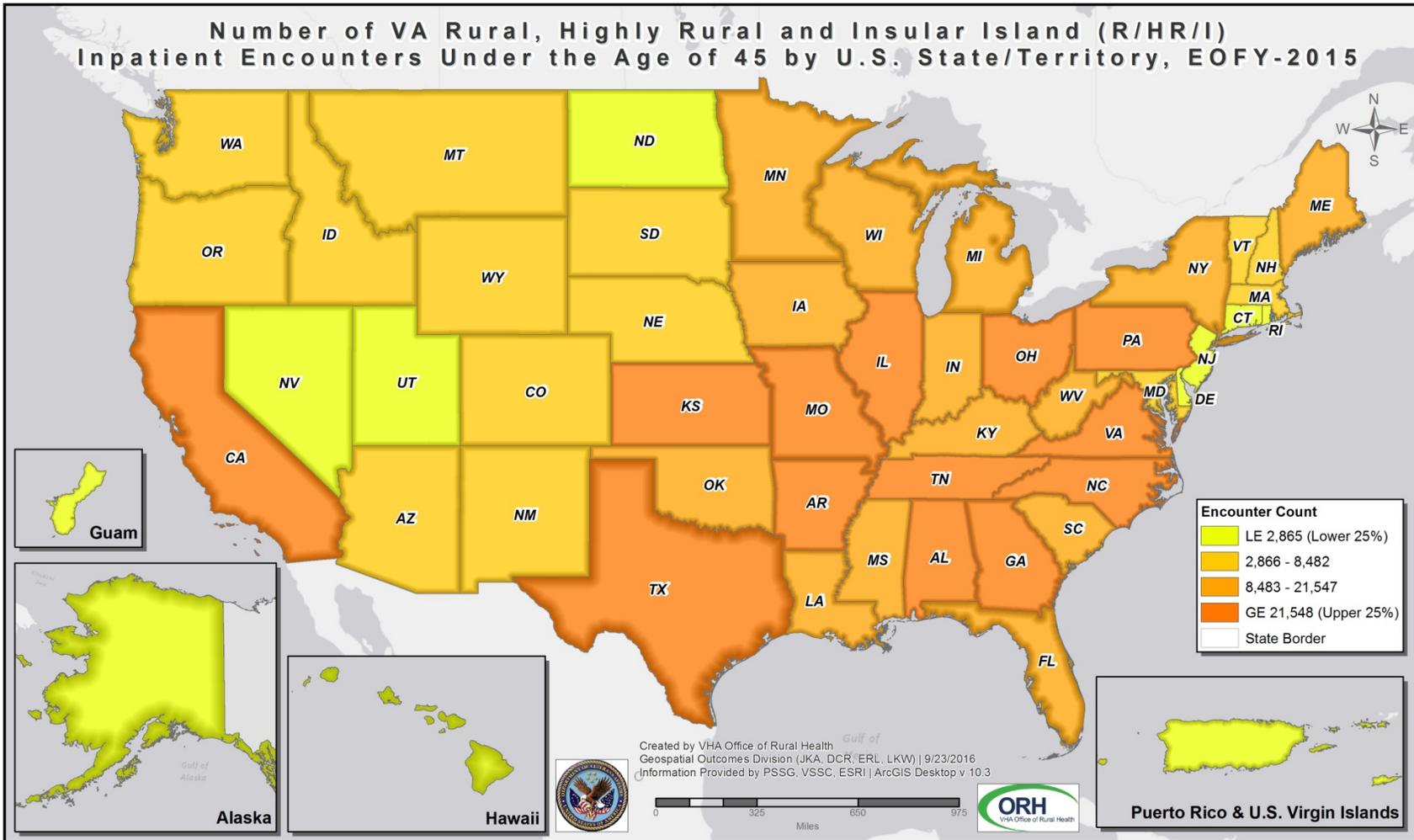
The maps in the next series focus on those R/HR/I patients *under the age of 45* who had an inpatient encounter at a VA health care facility or by a VA medical provider. The denominator for the percentages is the number of all R/HR/I patients who had VA inpatient encounters. Data were mapped at the State/Territory and county levels of aggregation. In Maps 13 and 14, displayed by State, data are divided into four equally statistical classes, with the highest 25% in terms of volume and percentage are designated by the darkest shade of orange. Six U.S. States showed both a high volume and high proportion (in upper 25% quartile) of VA inpatient encounters by those patients *under the age of 45*. Those were Alabama, California, Georgia, Illinois, Kansas, and Tennessee. The county level maps 15 and 16 divided the data into three classes because many counties had a low number of patients *under the age of 45*. Therefore, in an effort to protect confidentiality of patients, the county maps were generated to display the highest one-third in terms of volume and percentage, designated by the darkest shade of orange.



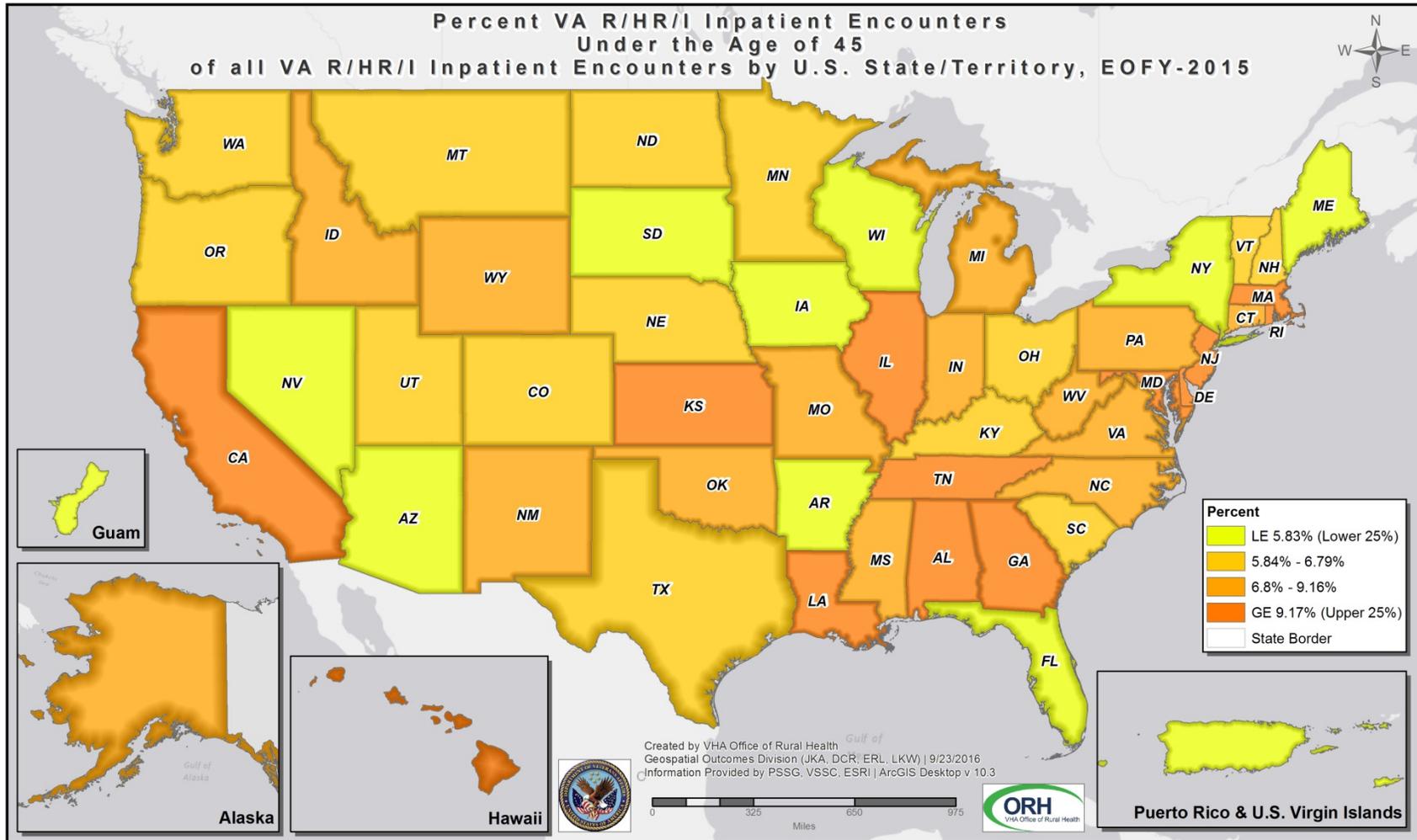
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 13



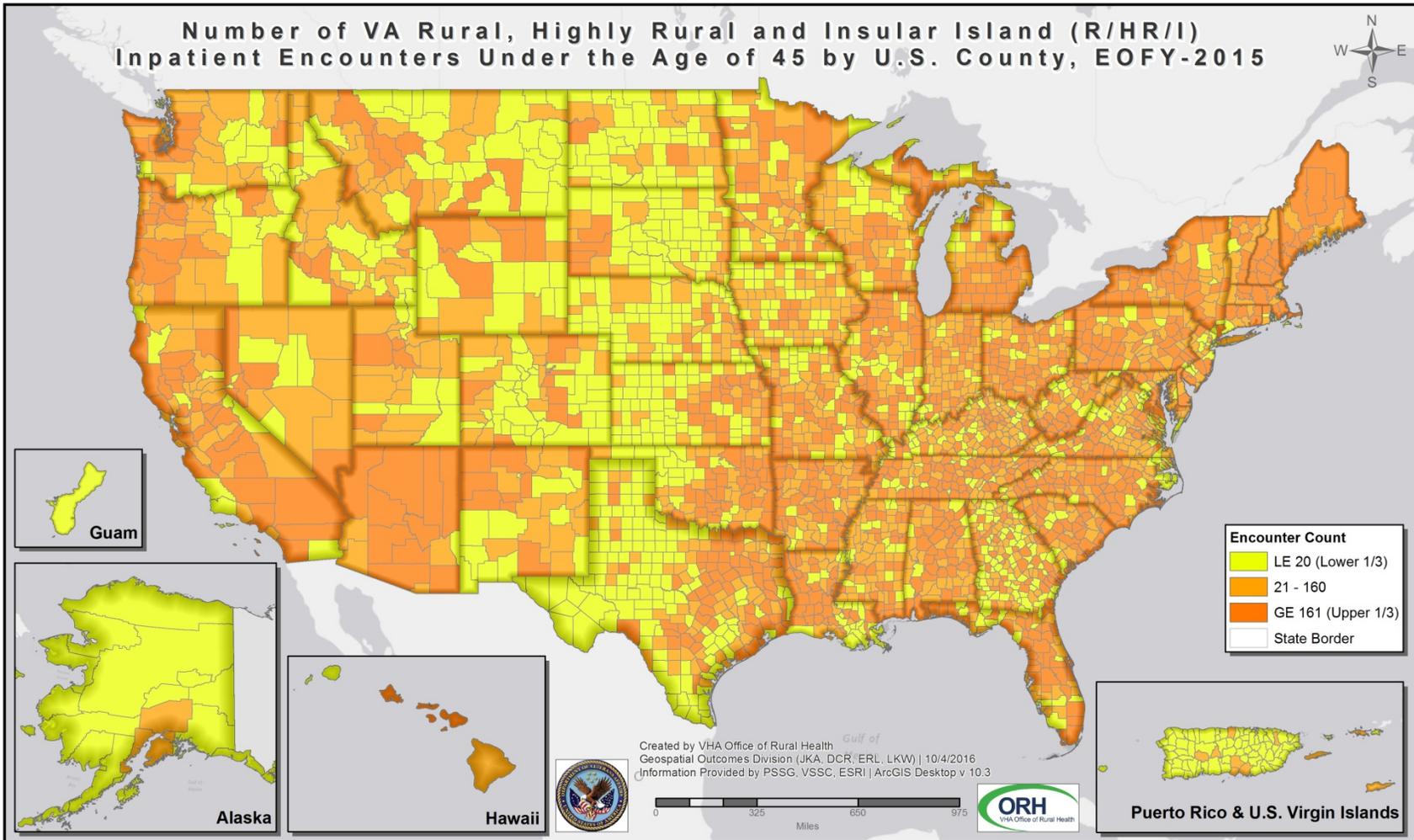
Map 14



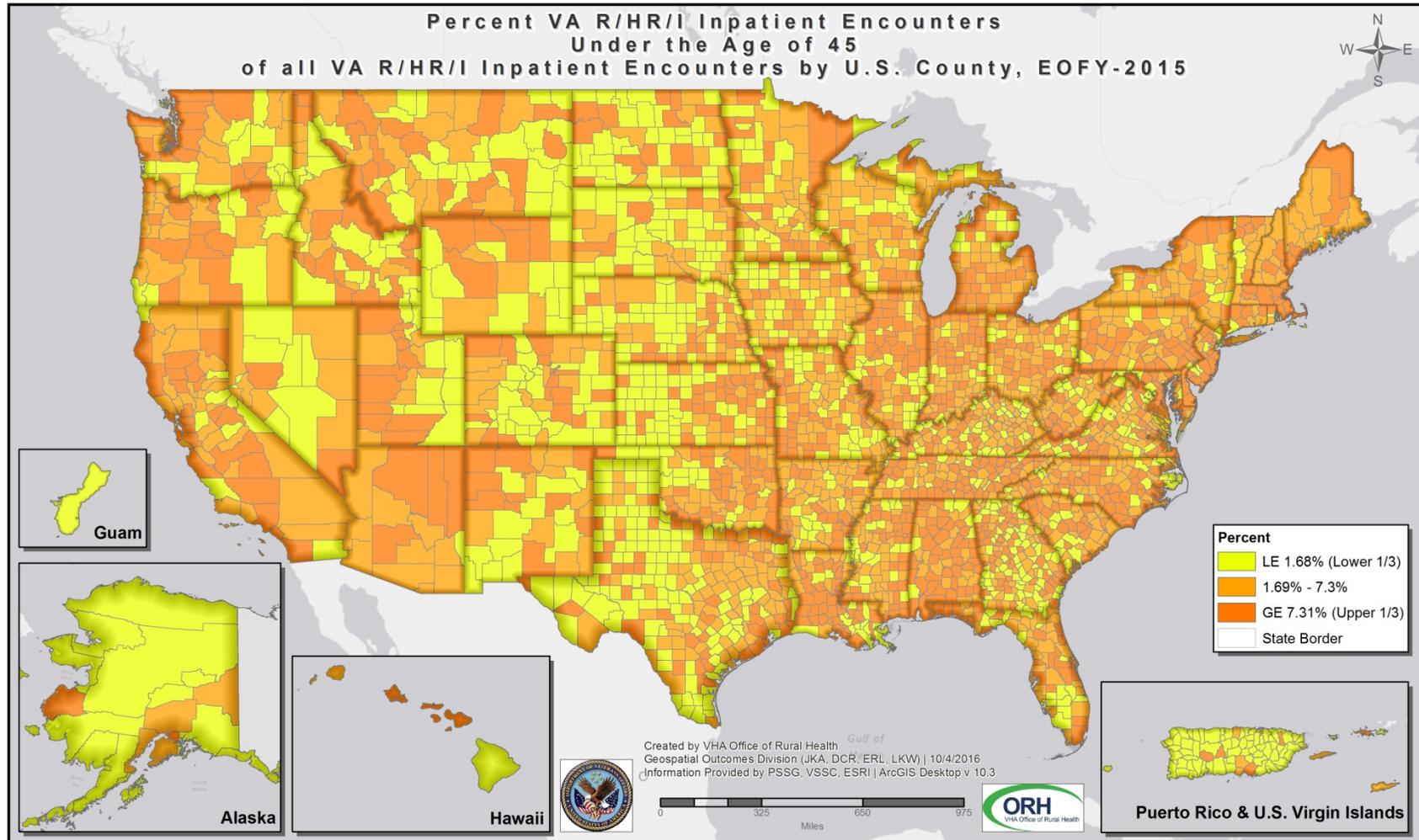
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 15



Map 16



Health Services Utilization By Rural Veterans (Inpatient Encounters)



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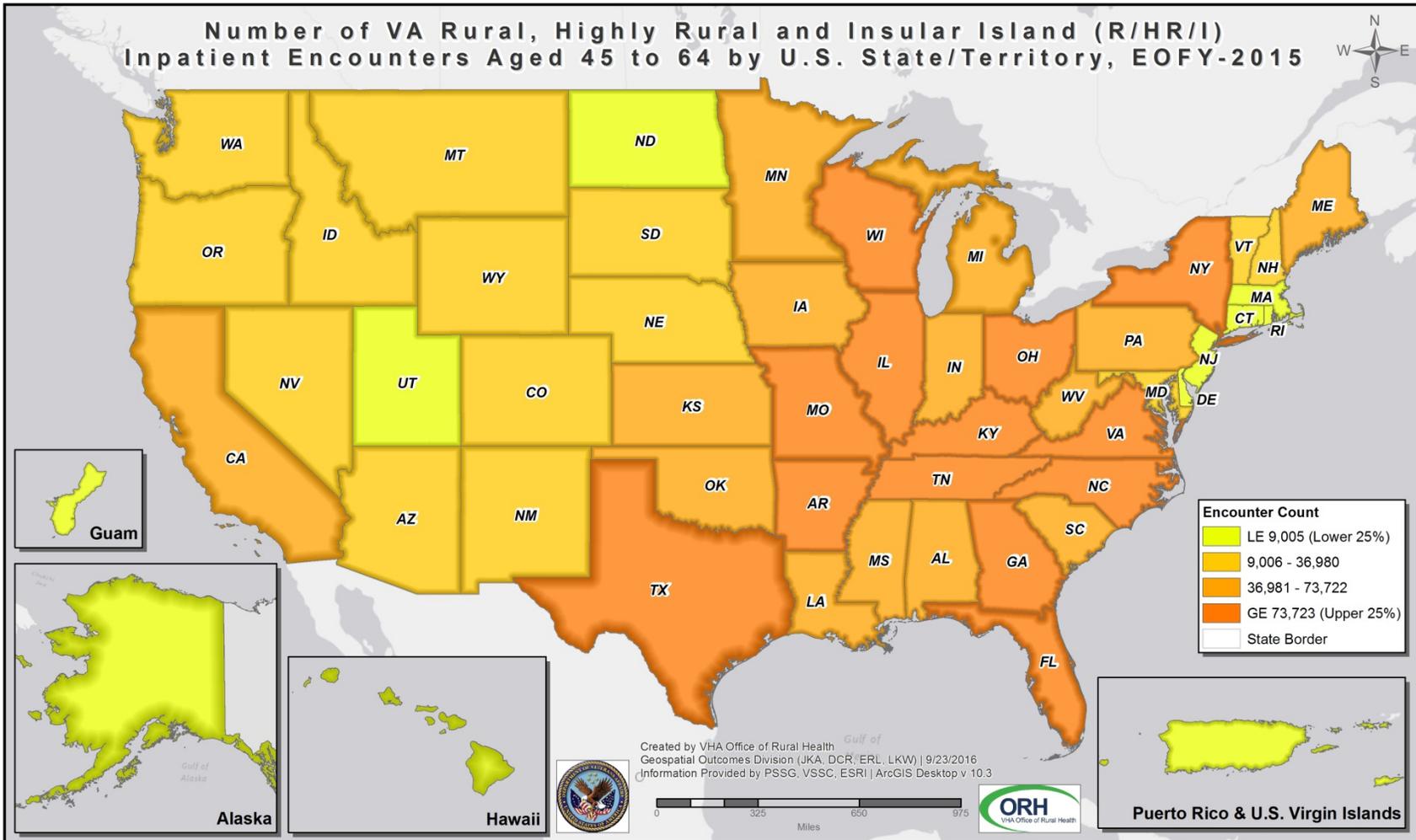


AGES 45 TO 64

Table 2 shows statistics for VA R/HR/I inpatient encounters by those patients *aged 45 to 54*, which represent 7.77% of all VA R/HR/I Inpatient encounters across the nation. The top 10 States/Territories with the greatest percentage of Veteran patients in this age group, which exceed the national overall percentage, included: Hawaii (17.05%), Delaware (14.82%), Massachusetts (13.12%), Kansas (12.47%), Georgia (12.1%), Alaska (11.49%), District of Columbia (10.71%), Alabama (10.28%), Wyoming (10.25%), and Maryland (9.99%).

Those VA inpatient encounters patients who are between *55 and 64 years of age* and live in R/HR/I areas of the nation account for 22.26% as a whole. The top 10 States/Territories reflecting this trend, exceeding more than one-quarter of the national overall percentage, included: District of Columbia (82.74%), U.S. Virgin Islands (48.52%), Alaska (40.67%), Alabama (29.22%), Georgia (27.97%), Delaware (27.66%), Puerto Rico (26.76%), Louisiana (26.34%), Ohio (26.28%), and Mississippi (25.88%).

The maps in the next series combine the two age groups together to portray a visual of those R/HR/I patients *aged 45 to 64* who had VA inpatient encounters. These data are mapped at the State/Territory and county levels of aggregation. The denominator for the percentages is the number of all R/HR/I patients who had VA inpatient encounters. The highest 25% in terms of volume and proportion is designated by the darkest shade of orange. Three of the U.S. States, as shown on Maps 17 and 18, had both a high volume and high proportion (in upper 25% quartile) of VA inpatient encounters by those patients *aged 45 to 64*. Those are Georgia, North Carolina and Ohio.



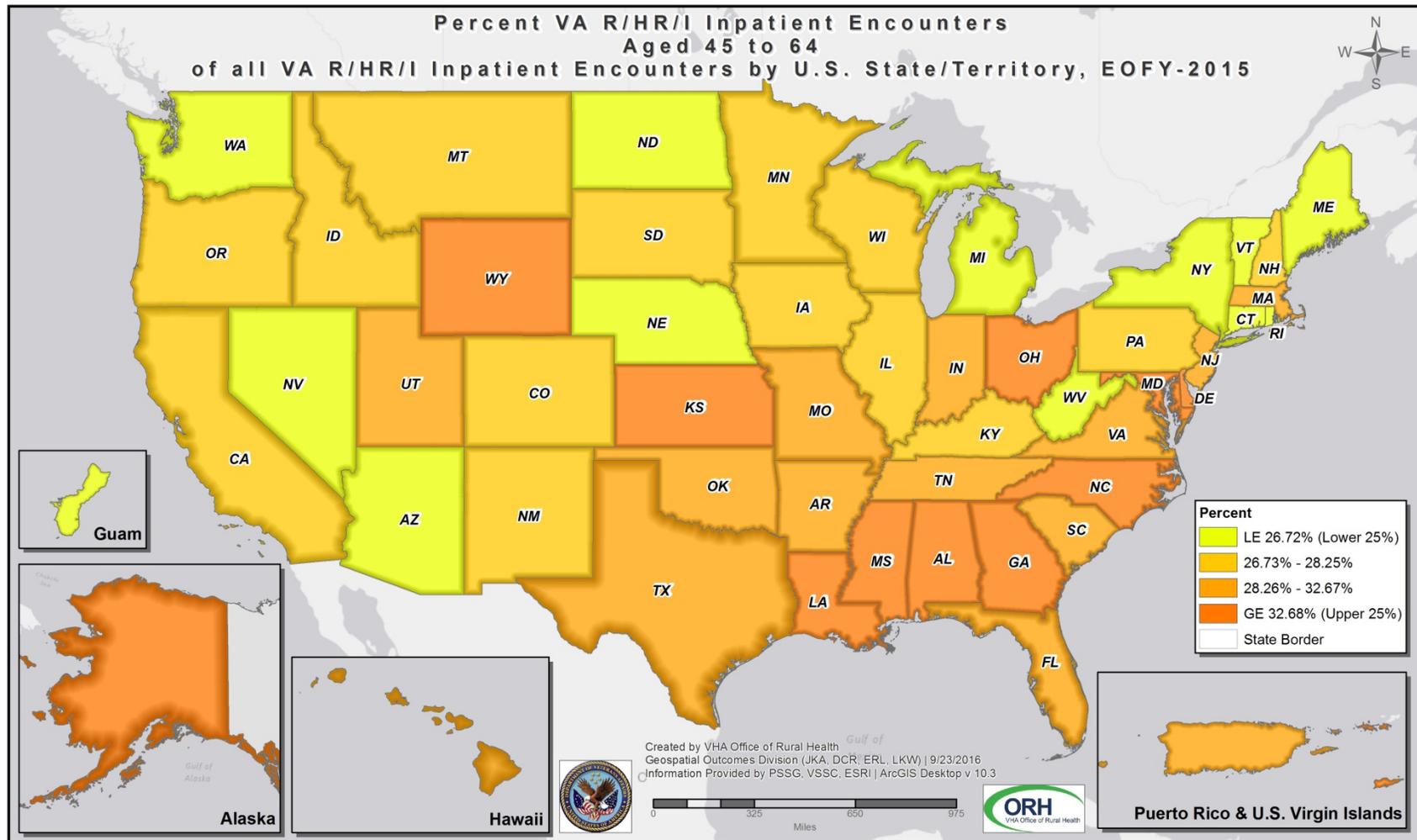
Map 17



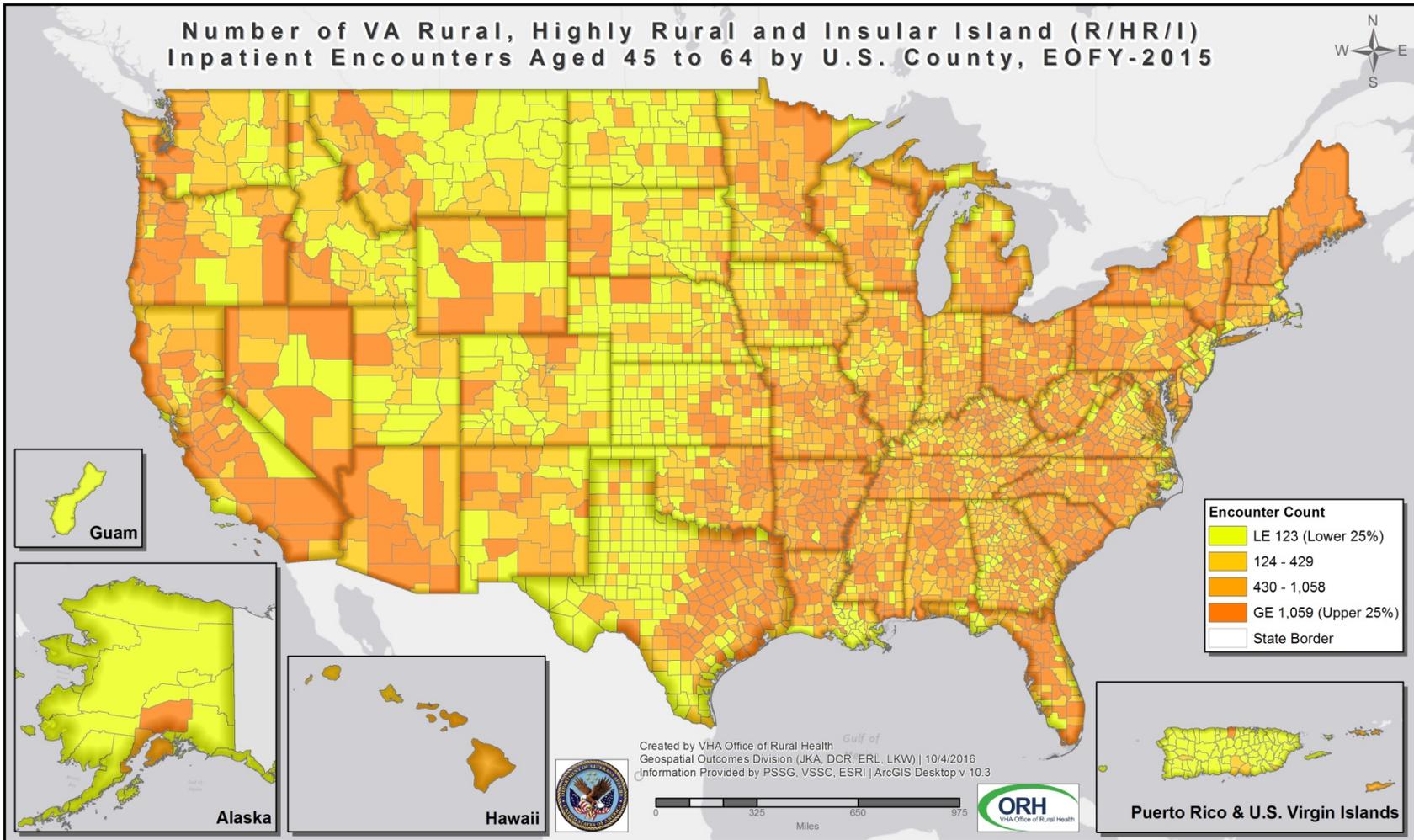
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 18



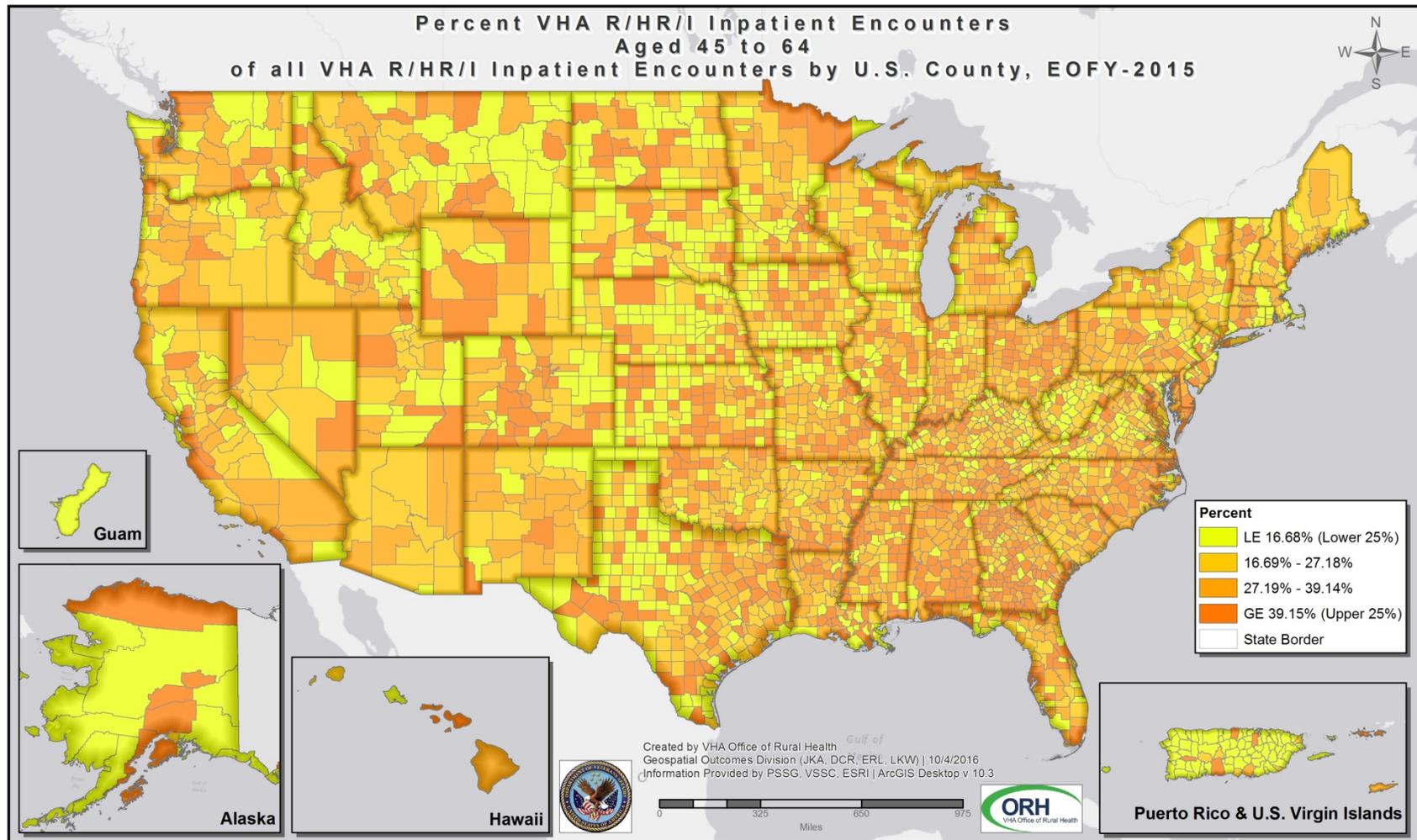
Map 19



Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 20



AGES 65 TO 74

On the national level, patients in R/HR/I areas *aged 65 to 74* who had VA inpatient encounters comprised of more than one-third (36.6%) of the total number of VA R/HR/I inpatient encounters, the highest of all age groups. In Guam, all 34 VA R/HR/I inpatient encounters (100.0%) were by patients *aged 65 to 74*. Other States/Territories with the greatest percentage of those patients in this age group, which exceed the national overall percentage include: Rhode Island (50.5%), Connecticut (45.49%), Nevada (43.29%), Washington (43.1%), North Dakota (43.03%), Nebraska (42.3%), Colorado (41.35%), Oregon (39.88%), and Michigan (39.87%).

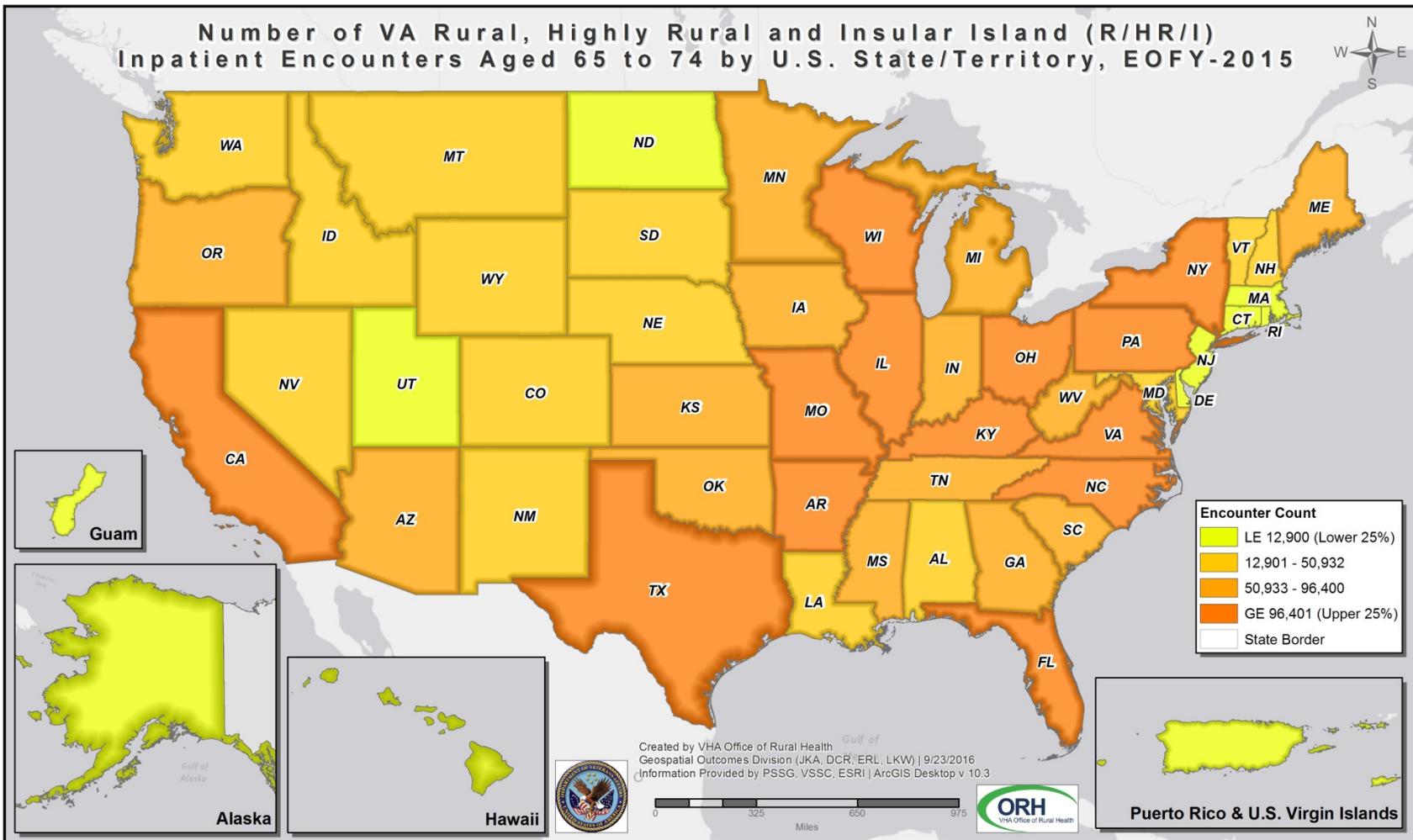
The maps in the next series focus on R/HR/I patients *aged 65 to 74* who had VA inpatient encounters. These data are mapped at the State/Territory and county levels of aggregation. The denominator for the percentages is the number of all R/HR/I patients who had VA inpatient encounters. The highest 25% in terms of volume and proportion is designated by the darkest shade of orange. Two of the U.S. States, as shown on Maps 21 and 22, had both a high volume and high proportion (in upper 25% quartile) of VA inpatient encounters by those patients *aged 65 to 74*. Those were Pennsylvania and Wisconsin.



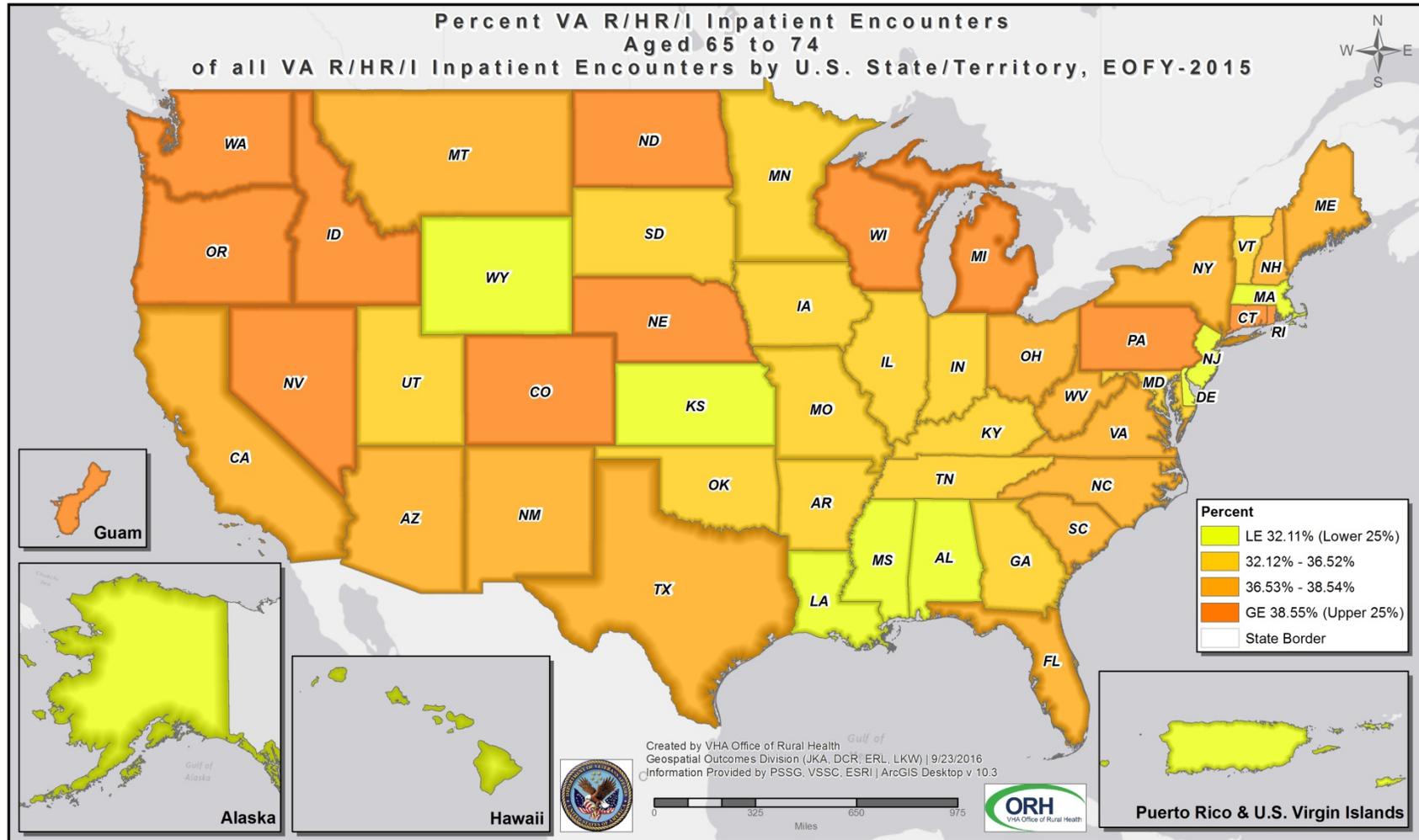
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 21



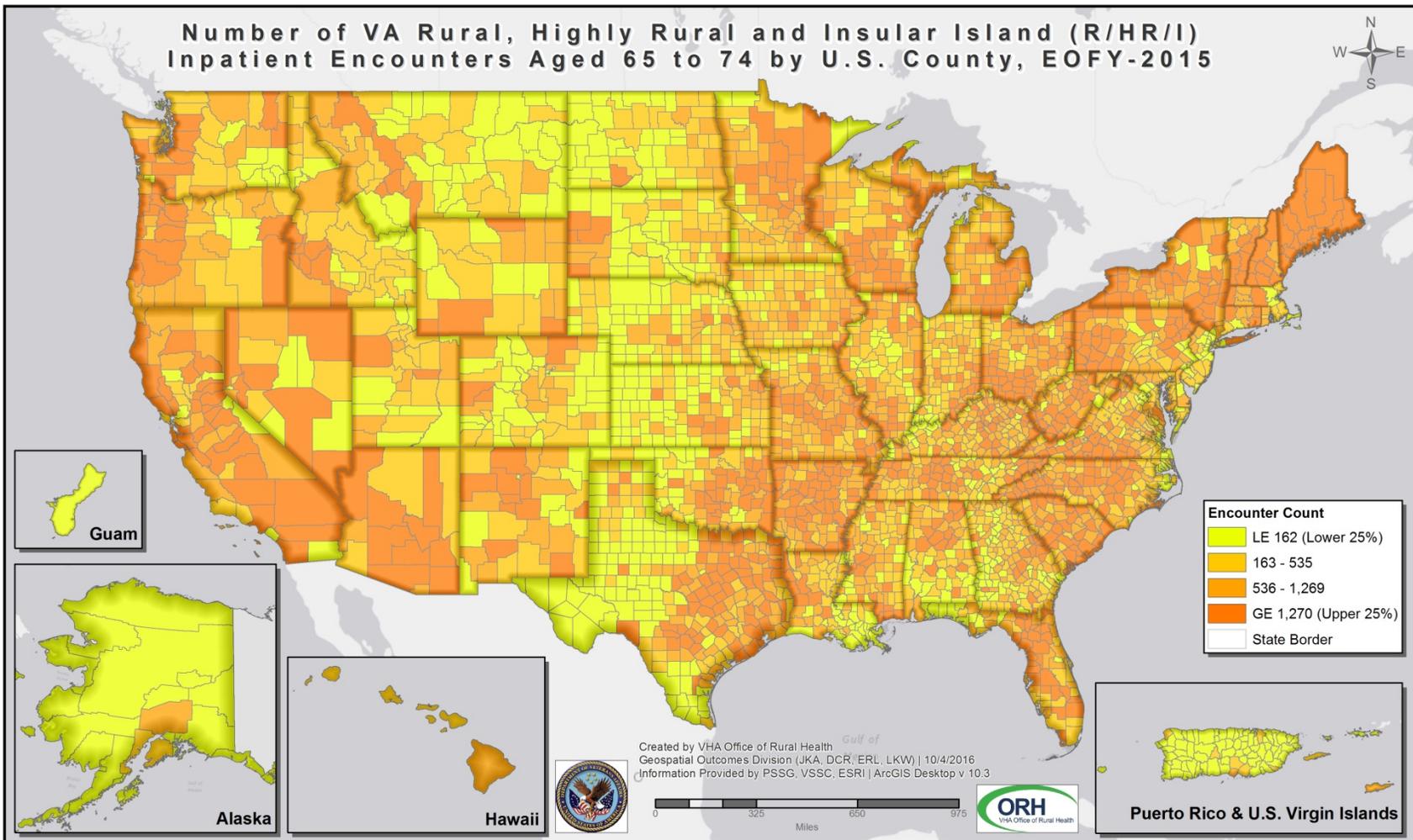
Map 22



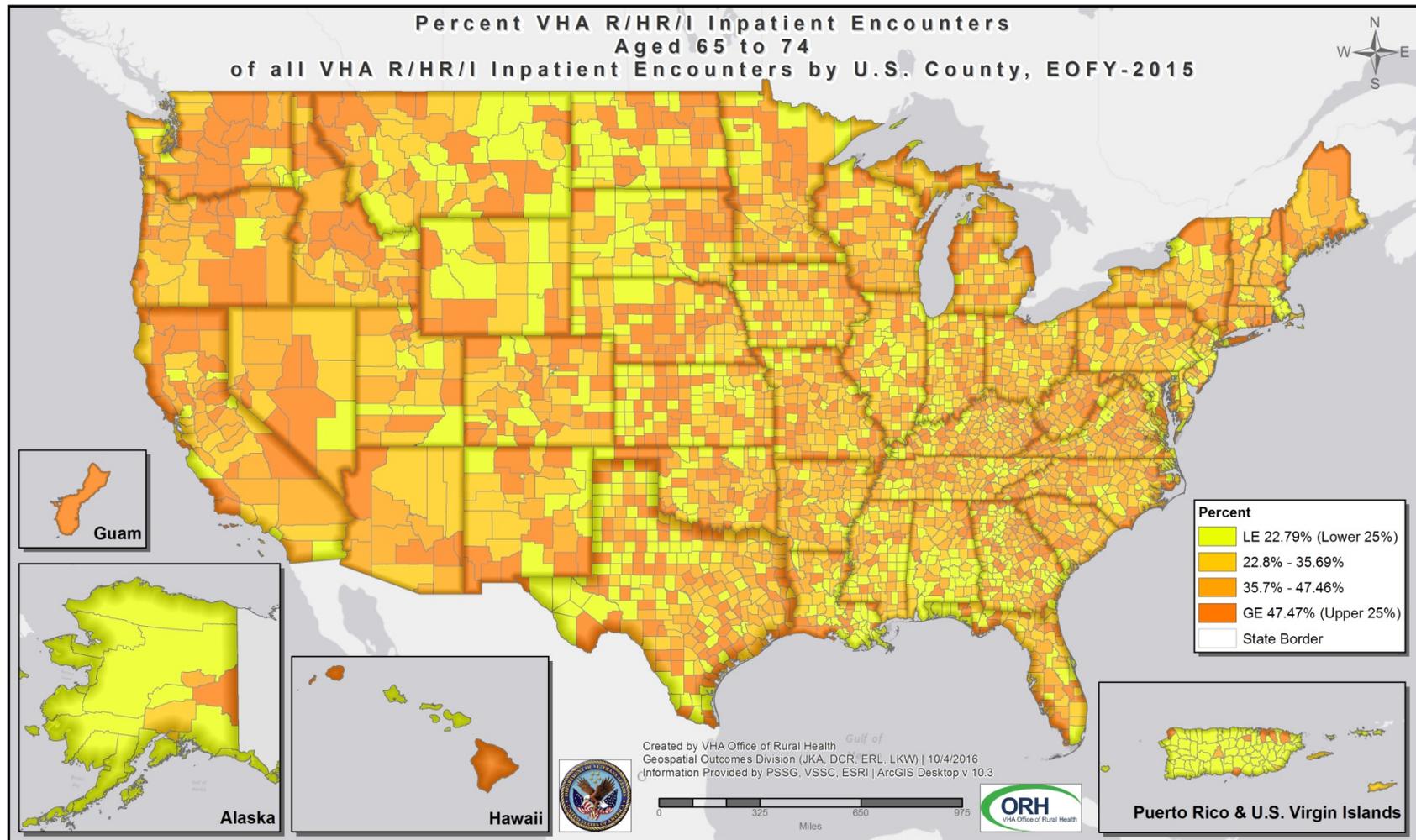
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 23



Map 24



Health Services Utilization By Rural Veterans (Inpatient Encounters)



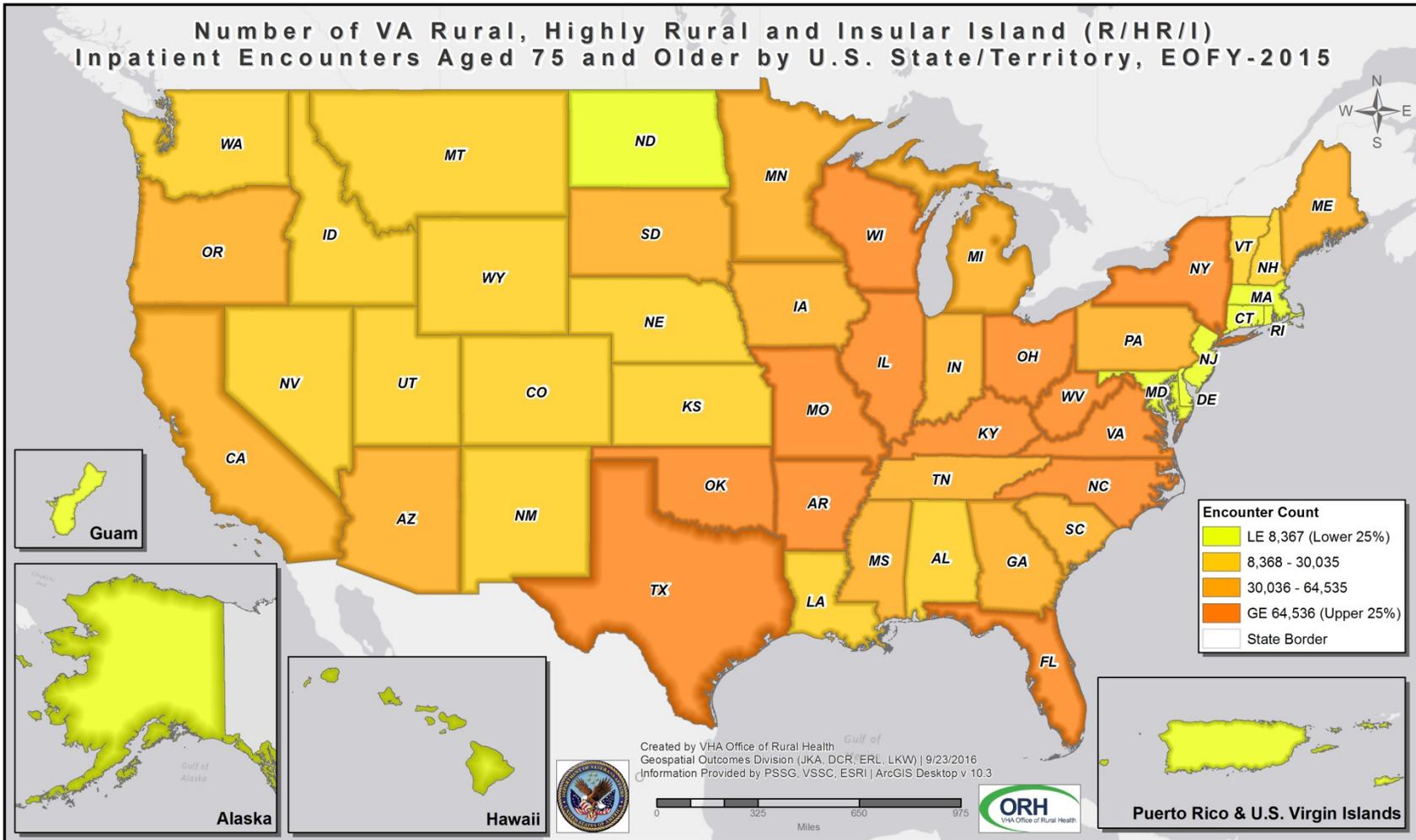
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AGE 75 AND OLDER

On the national level, Veteran patients in R/HR/I areas who were *age 75 and older* and provided inpatient care by a VA facility or VA provider comprised of about one-quarter (25.8%) of all VA R/HR/I inpatient encounters. The top 10 States/Territories with the greatest percentage of Veteran patients in this age group, which exceed the national overall percentage included: South Dakota (37.37%), Puerto Rico (35.06%), Vermont (34.27%), West Virginia (33.93%), Arizona (33.11%), Maine (32.0%), New York (31.27%), Kentucky (30.47%), Utah (29.95%), and Iowa (29.94%).

The maps in the next series focus on R/HR/I patients *aged 75 and older* who had VA inpatient encounters. These data are mapped at the State/Territory and county levels of aggregation. The denominator for the percentages is the number of all R/HR/I patients who had VA inpatient encounters. The highest 25% in terms of volume and proportion is designated by the darkest shade of orange. Three of the U.S. States, as shown on Maps 25 and 26, had both a high volume and high proportion (in upper 25% quartile) of VA inpatient encounters by those patients *aged 75 and older*. Those are Kentucky, New York, and West Virginia.



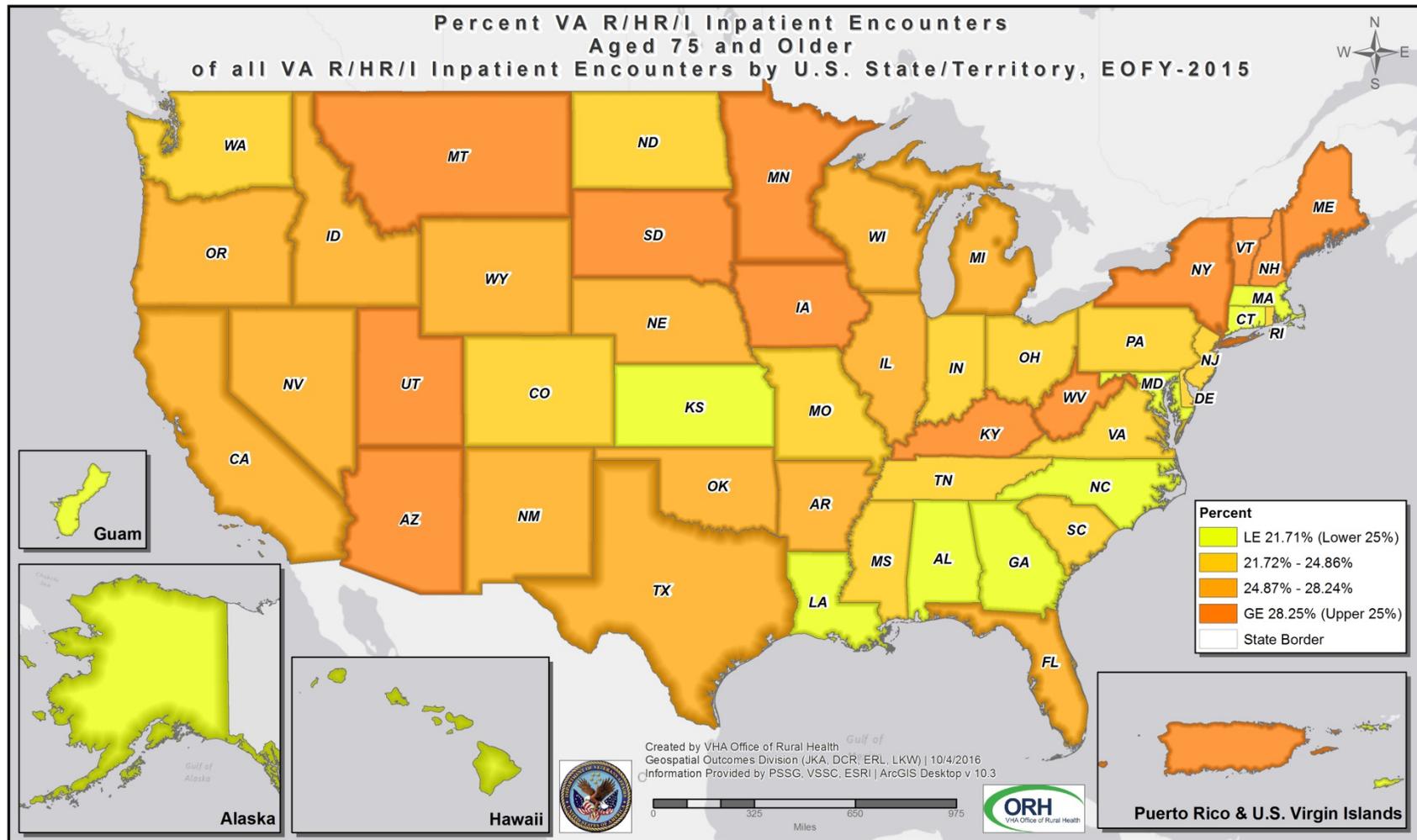
Map 25



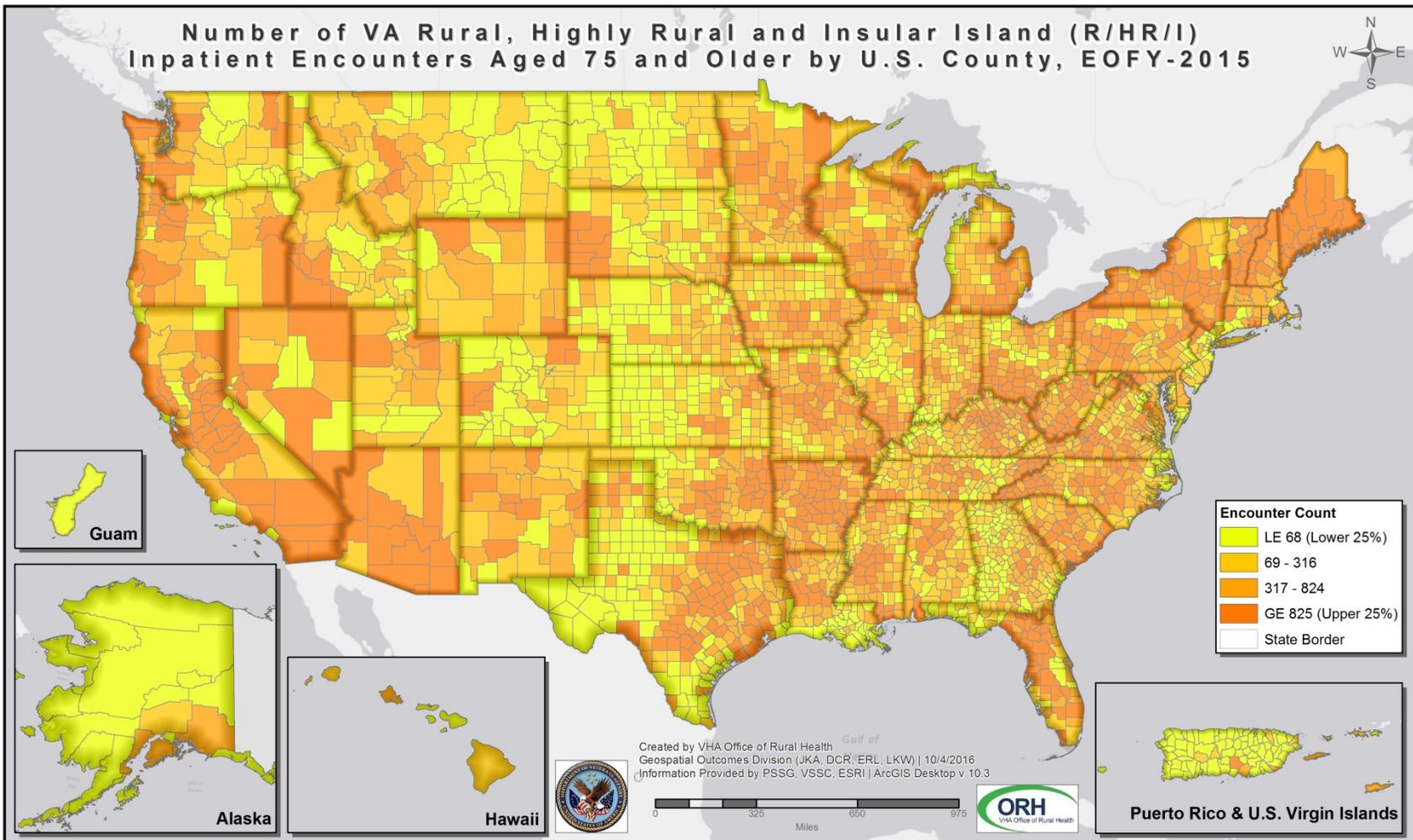
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 26



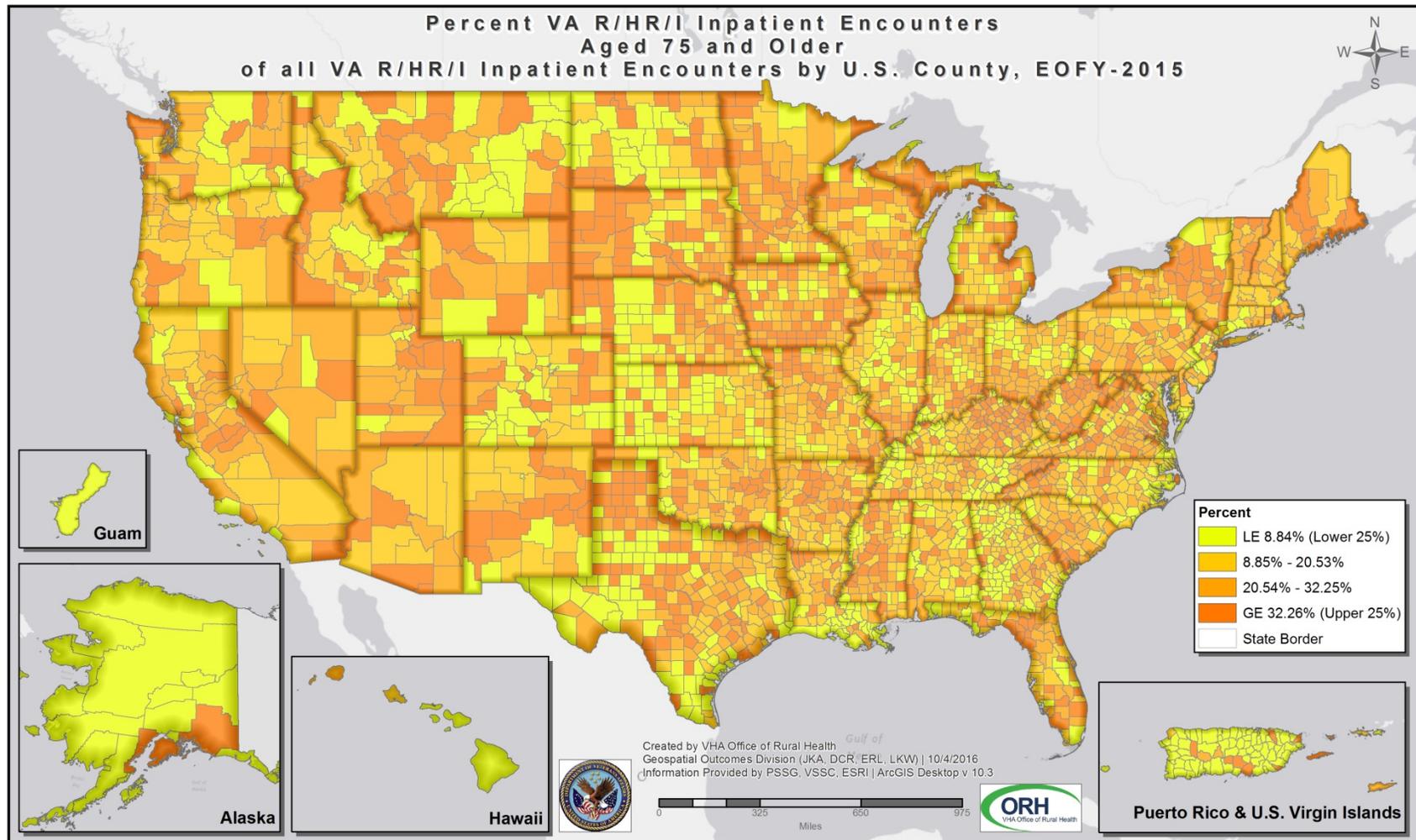
Map 27



Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 28



RACE

The focus of this section pertains to the the number and percentages of Veteran patients of various racial groups residing in R/HR/I areas and their inpatient encounters at a VA medical facility or by a VA provider. Nationally, the majority (86.23%) of encounters were by patients who identified as White or Caucasian race, while those by Black and African Americans represented about one tenth (10.62%). The Veteran patients who identified as Asian, Native Hawaiian/Pacific Islander, Alaska Native/Native American, or more than one race category were summed into a race category of Other. These encounters accounted for about 3.15% of the total number of VA R/HR/I inpatient encounters. Those who declined to answer or where race was unknown (4.33% of the VA R/HR/I inpatient encounters) were excluded from the analysis in this chapter. In other words, the numbers and percentages in the maps are based on known race.

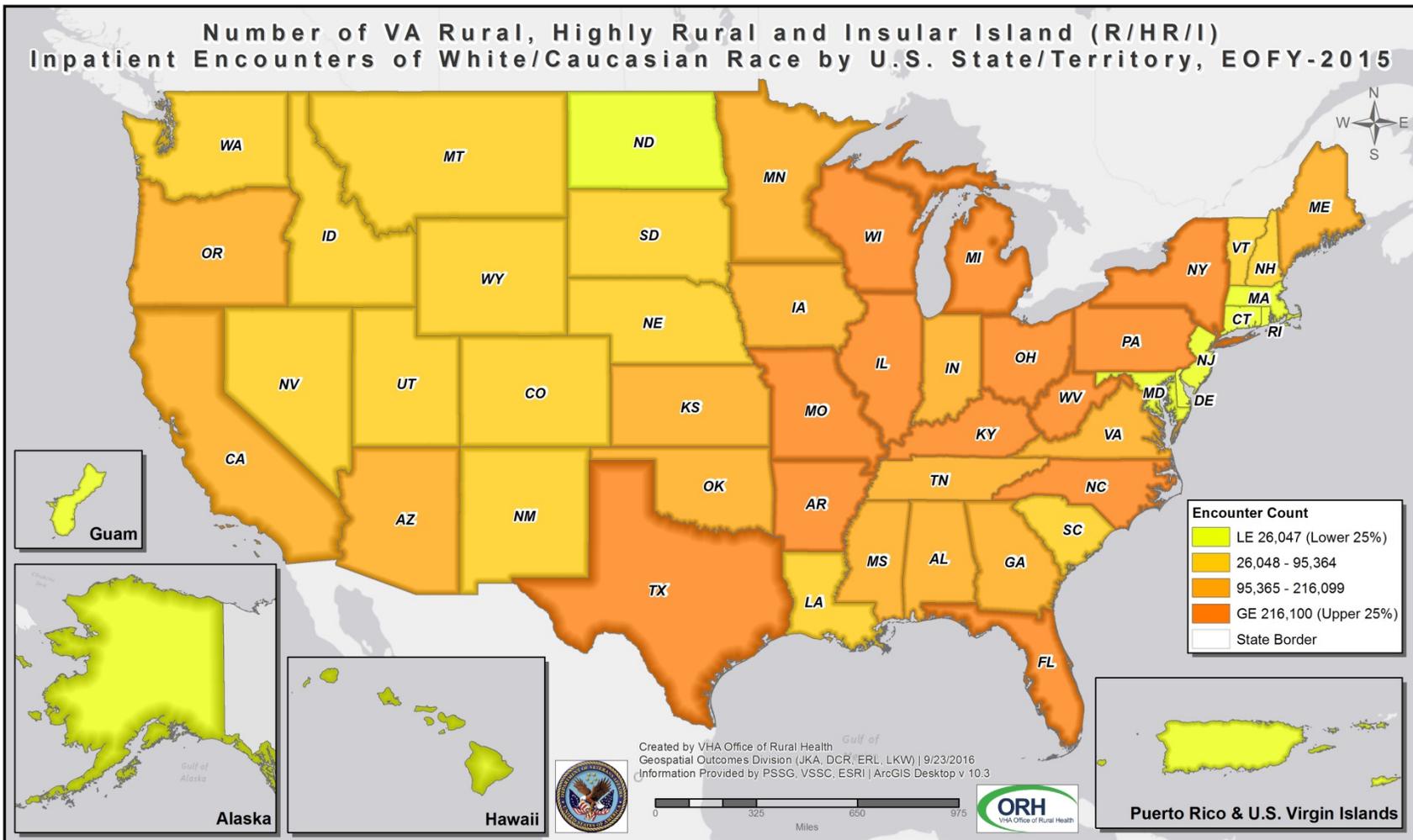
Map 29 – Map 32 portray the numbers and percentages of VA inpatient encounters by White R/HR/I patients (numerator) of all VA inpatient encounters by patients whose race is known (denominator). In this series of maps, areas with a lower White population (and therefore areas with a higher concentration of minority groups) are portrayed by the lowest 25% (or quartile) in terms of volume and proportion, which are designated by the lightest shade of orange. In the District of Columbia, only 19 of the 336 VA R/HR/I inpatient encounters were by White/Caucasian patients (5.65%)- the rest were by Black patients. The other bottom 10 States/Territories with the lowest percentage of VA inpatient encounters by White patients included (in ascending order): U.S. Virgin Islands (34.97%), South Carolina (56.01%), Mississippi (56.57%), Georgia (57.33%), Louisiana (61.19%), Alabama (66.14%), Maryland (68.21%), North Carolina (72.94%) and Virginia (74.12%).



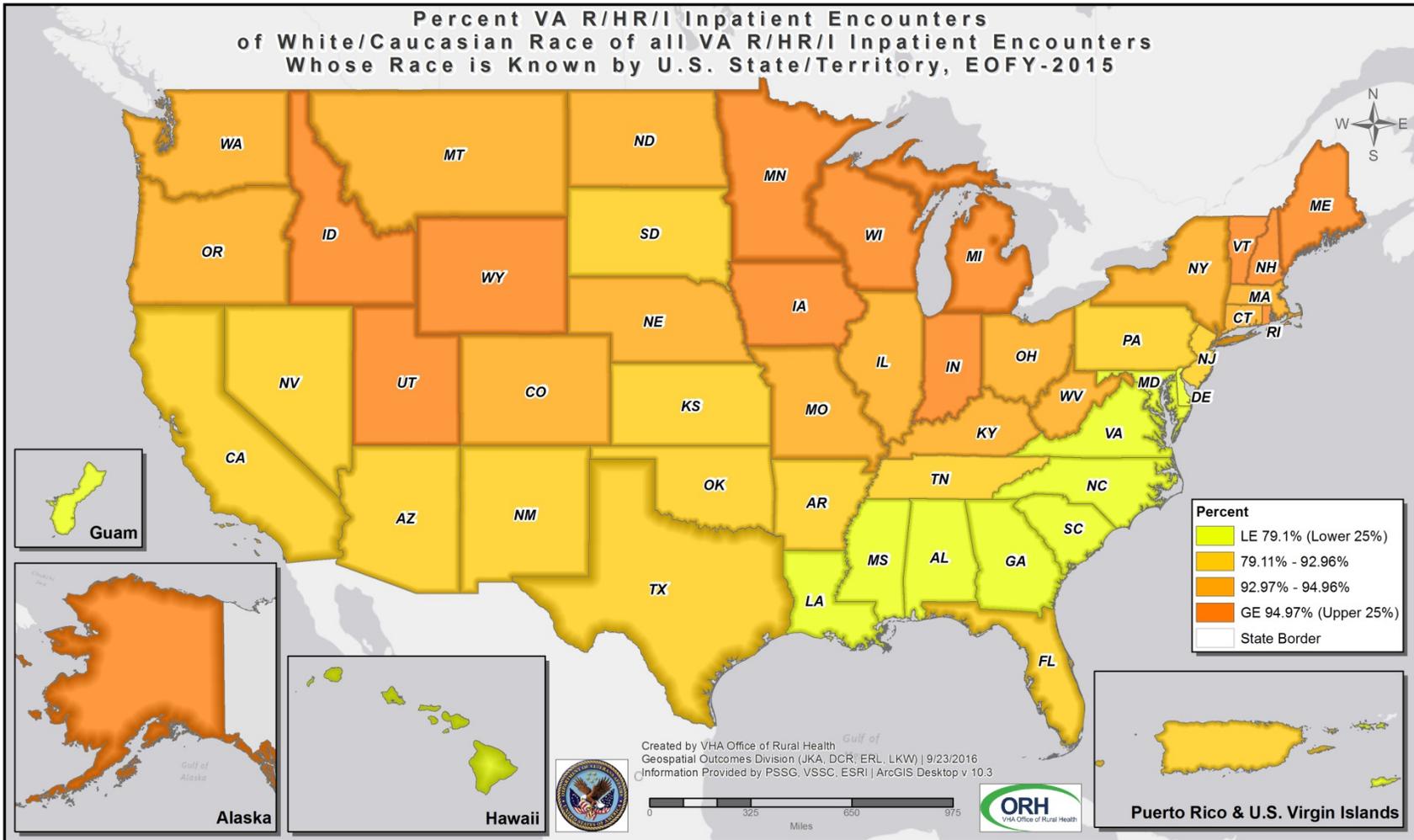
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 29



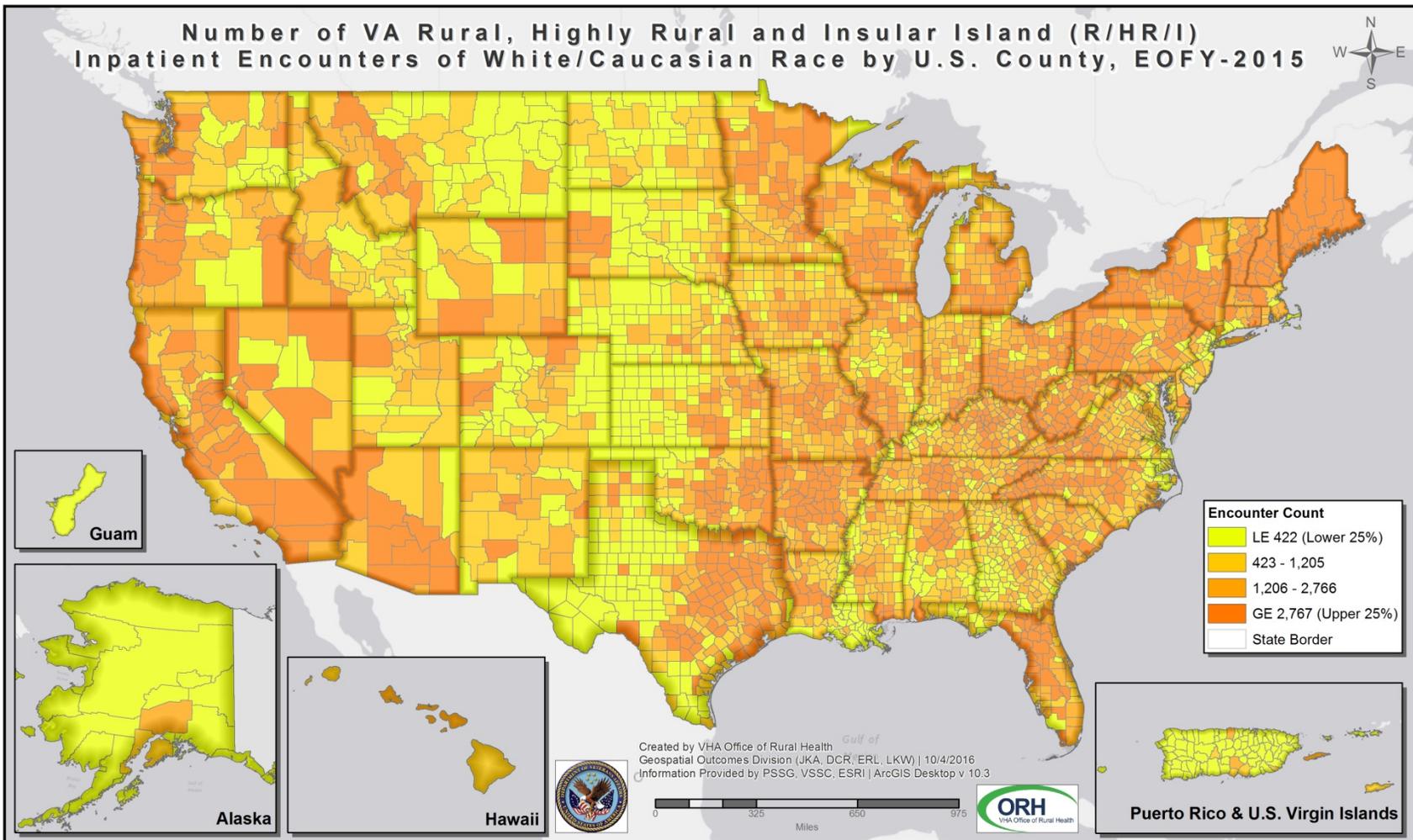
Map 30



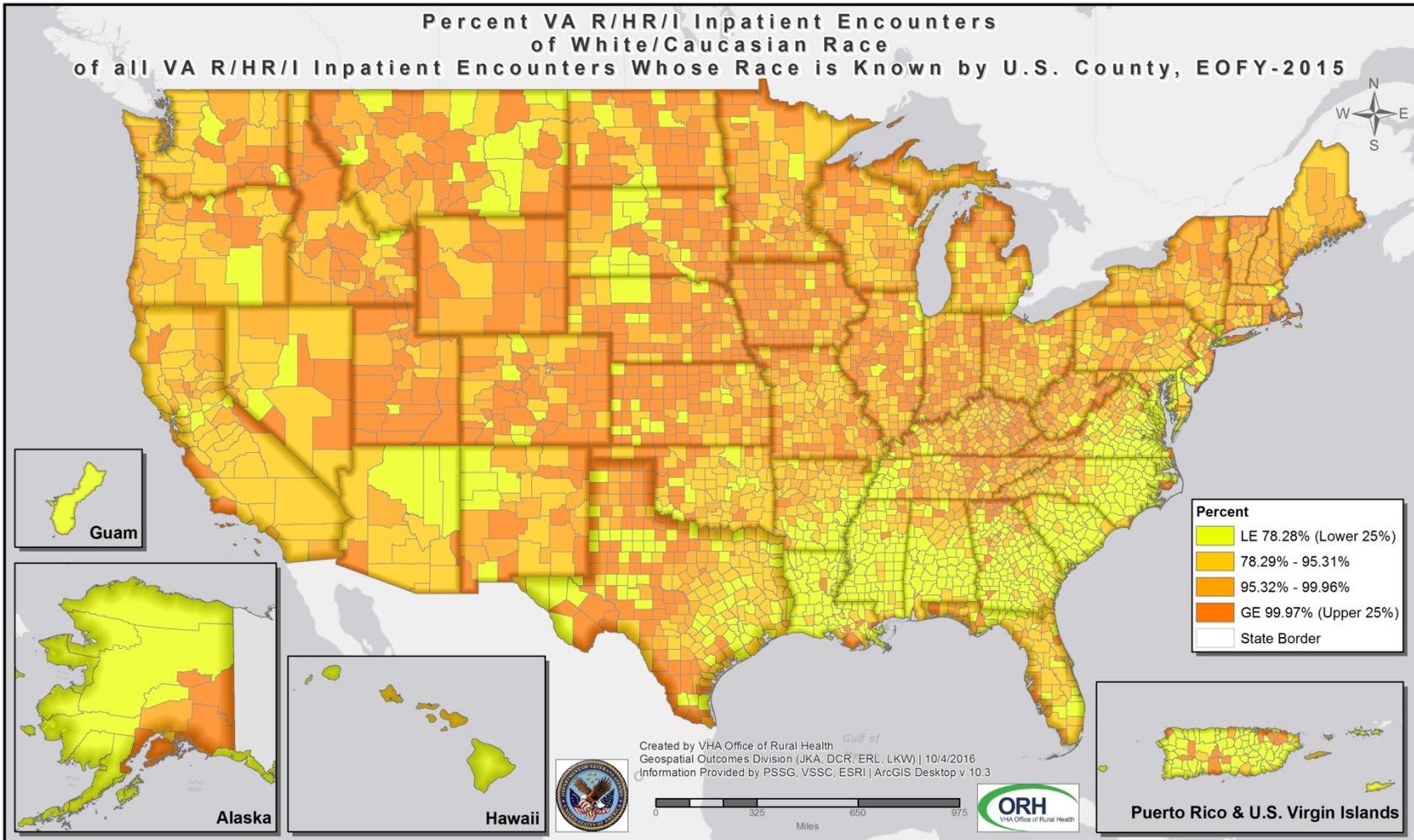
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 31



Map 32



Health Services Utilization By Rural Veterans (Inpatient Encounters)



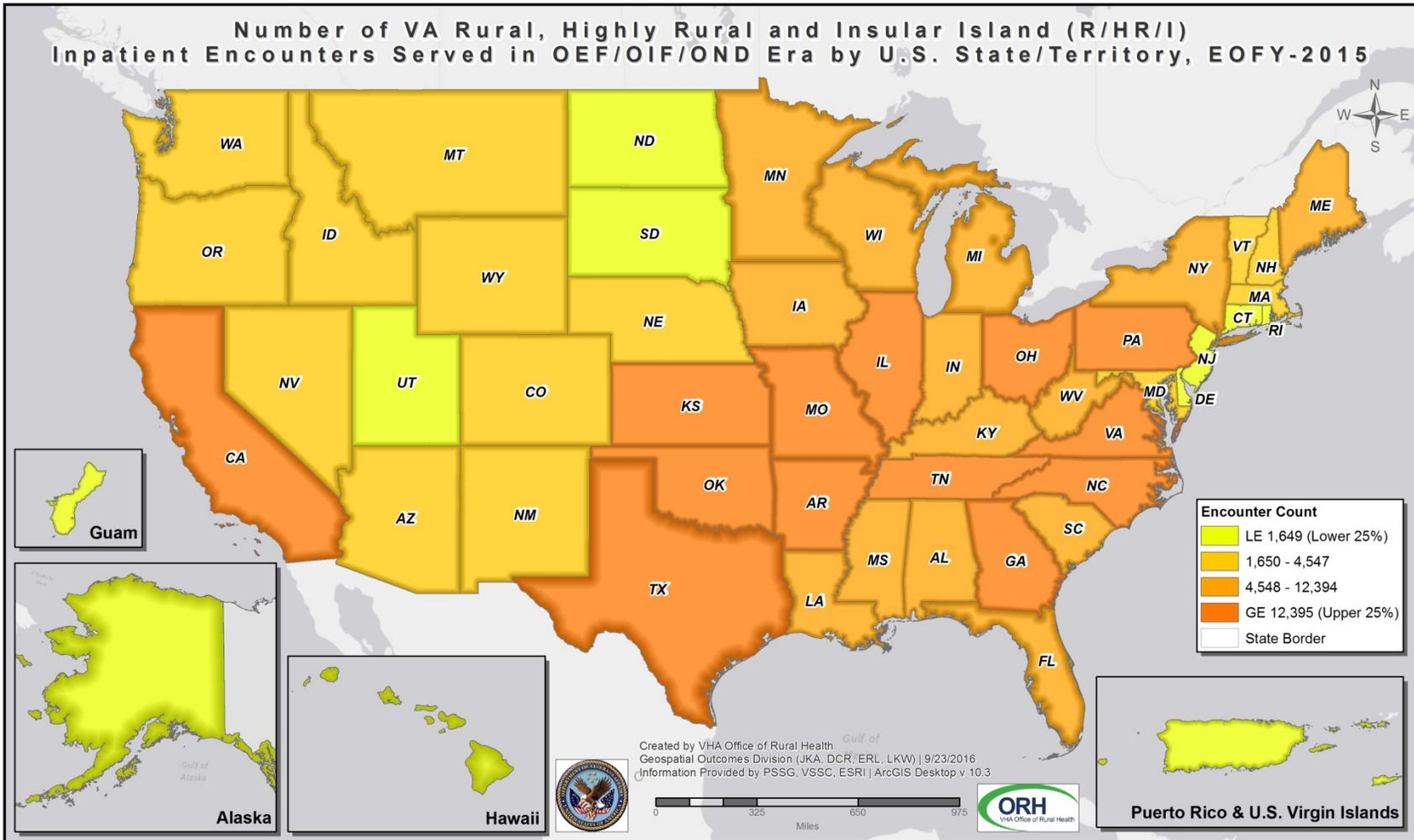
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SERVICE ERA

With the particular focus being those Veteran patients living in R/HR/I areas and who served in OEF (Operation Enduring Freedom), OIF (Operation Iraqi Freedom), and OND (Operation New Dawn) eras, the national overall representation of VA inpatient encounters by those particular patients to those VA inpatient encounters by all patients was 5.0% at EOFY-2015. The Top 10 States/Territories with VA inpatient encounters by R/HR/I patients who served in OEF/OIF/OND included: Massachusetts (13.81%), Hawaii (11.43%), Kansas (10.9%), Louisiana (9.33%), Alaska (8.51%), Illinois (8.19%), Tennessee (7.35%), Alabama (6.7%), Maryland (6.65%), and Pennsylvania (6.46%).

Map 33 – Map 36 portray the numbers and percentages of VA Inpatient encounters by patients who previously served in OEF/OIF/OND (numerator) of all VA Inpatient encounters (denominator). Data were mapped at the State/Territory and county levels of aggregation. In Maps 33 and 34, displayed by State, data are divided into four equally statistical classes, with the highest 25% in terms of volume and percentage are designated by the darkest shade of orange. Six U.S. States showed both a high volume and high proportion (in upper 25% quartile) of VA inpatient encounters by those patients who served in the OEF/OIF/OND Era. Those were California, Illinois, Kansas, Oklahoma, Pennsylvania and Tennessee. The county level maps 35 and 36 divided the data into three classes because many counties had a low number of patients who served in the OEF/OIF/OND Era. Therefore, in an effort to protect confidentiality of patients, the county maps were generated to display the highest one-third in terms of volume and percentage, designated by the darkest shade of orange.



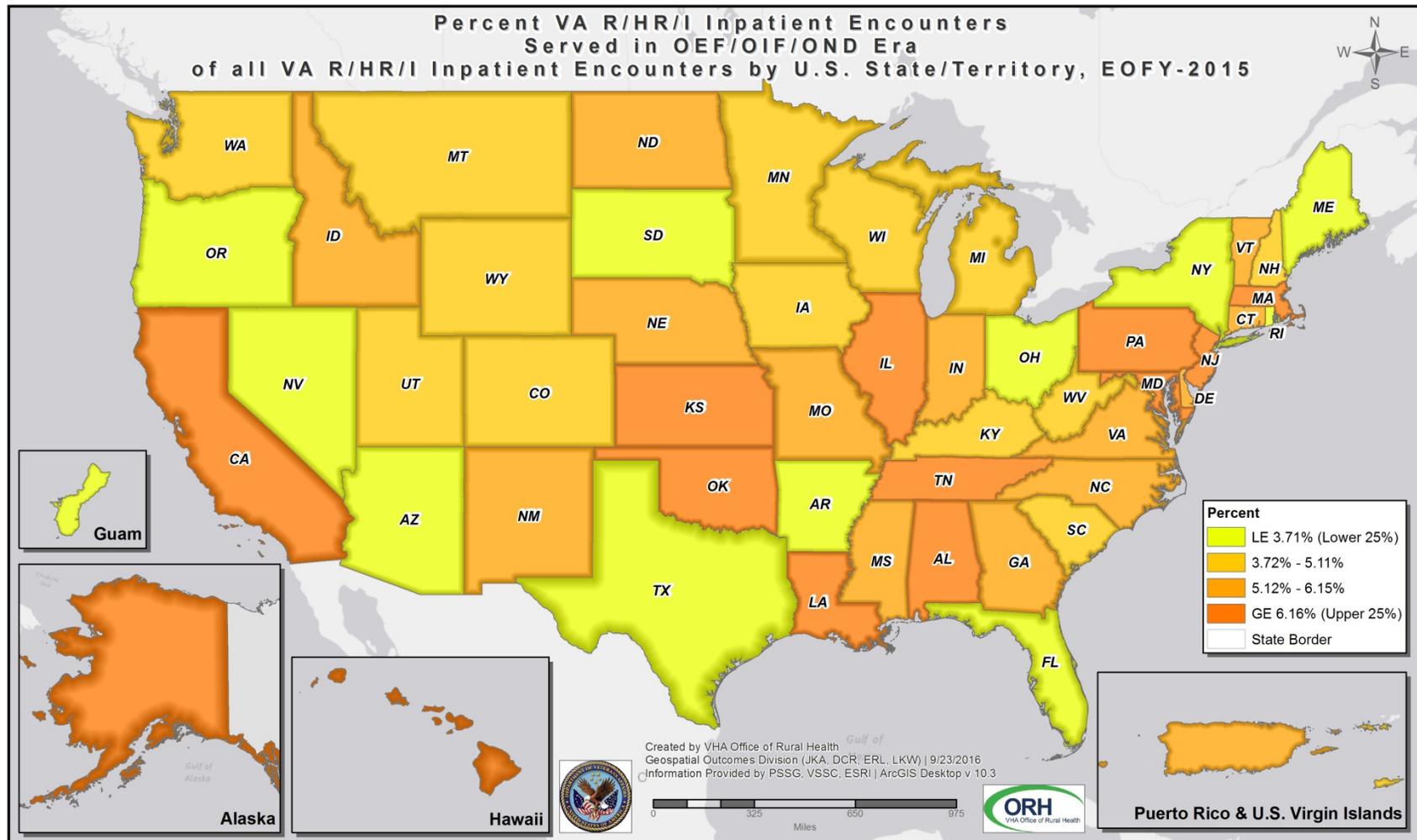
Map 33



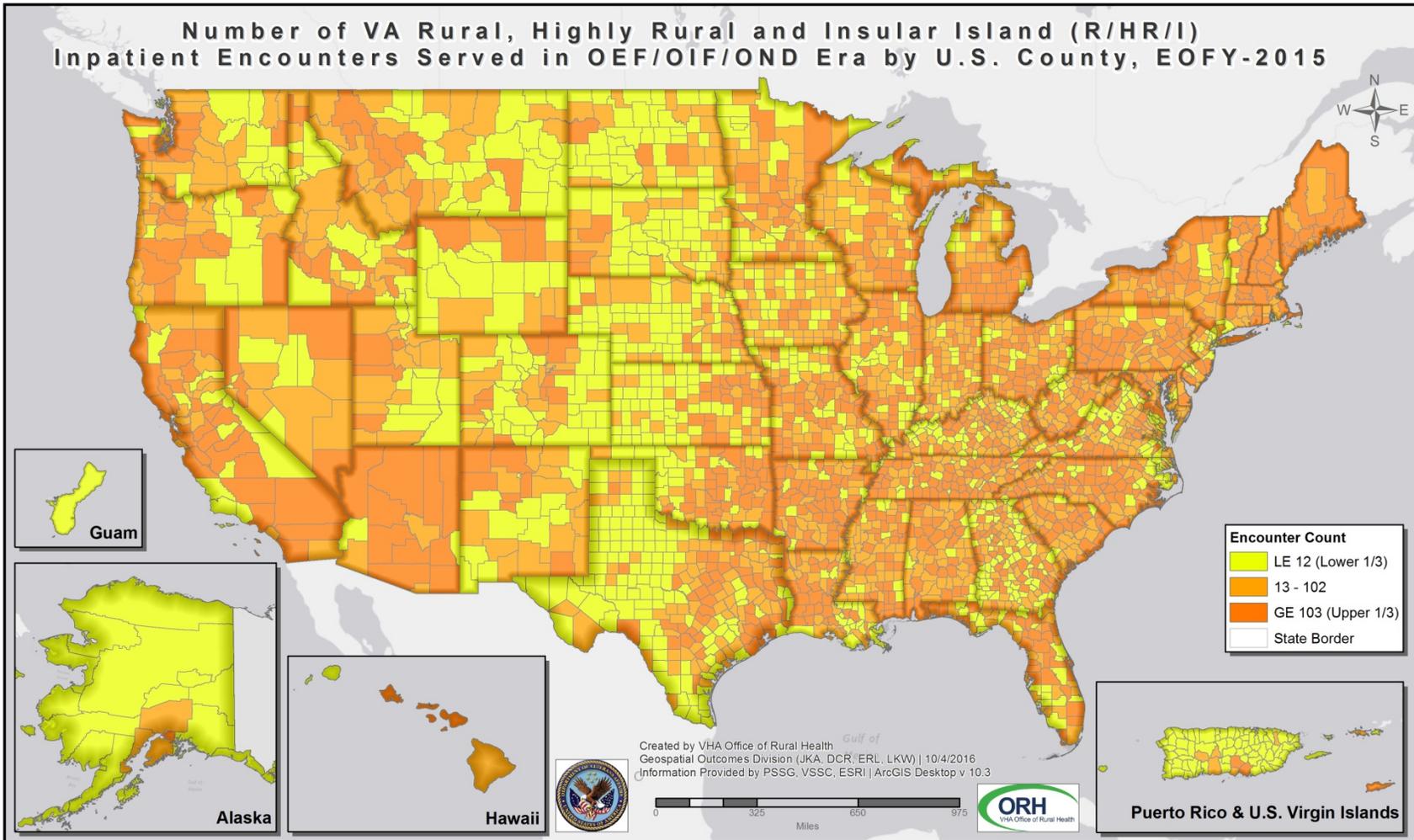
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 34



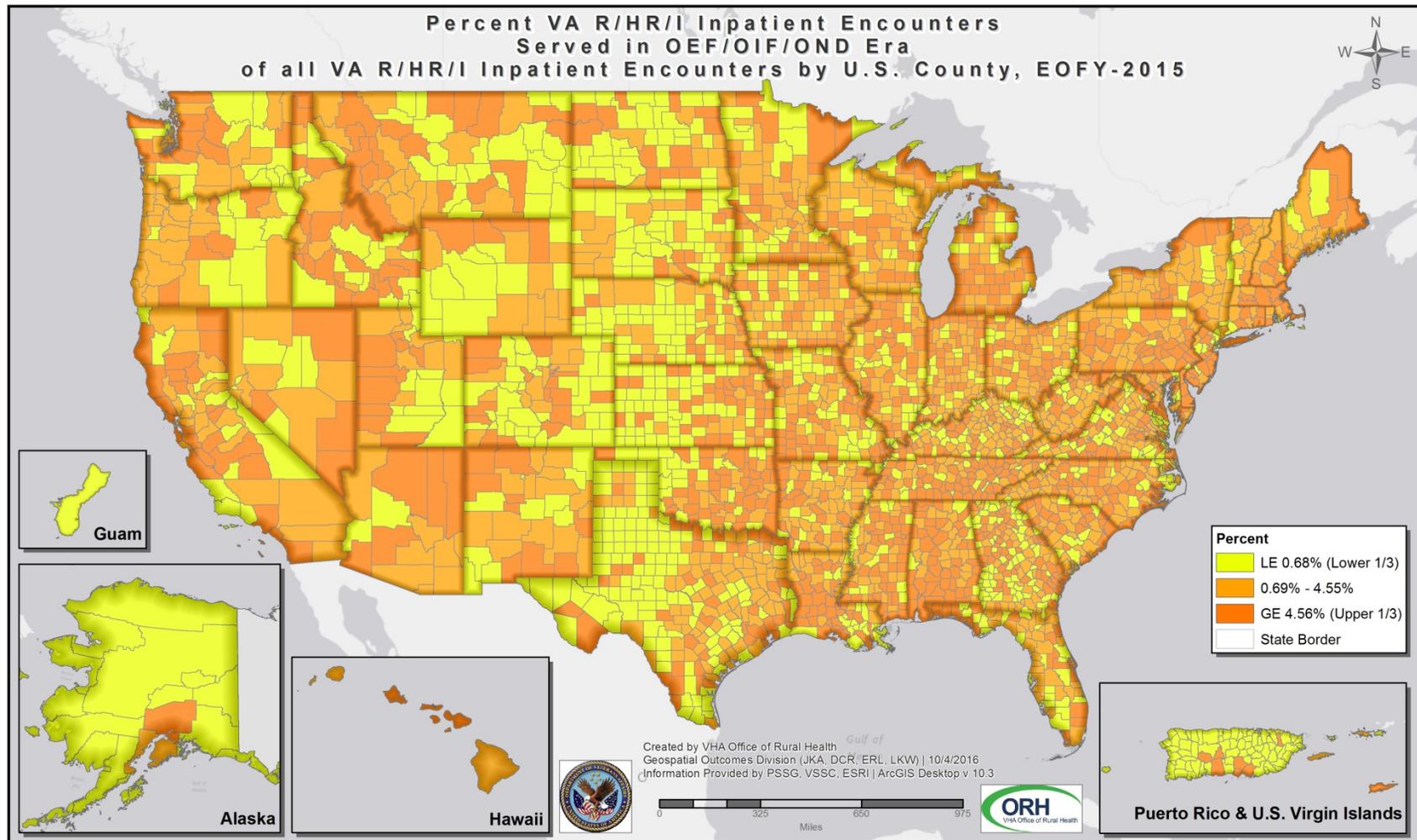
Map 35



Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 36



Section III: Inpatient Encounters in Non-VA Facility

National Overview

While the number of VA inpatient encounters totaled over 30 million (or about 11.41% of all types of encounters) at the end of EOFY-2015, as mentioned in Section I, a smaller population of Veteran patients sometimes find it necessary to seek or receive care outside of the VHA health care system on an inpatient basis. A number of factors that cause this trend may include a patient's limited geographic access and resources to the nearest VA facility, or even a shortage of available VA specialty care and providers in a patient's location. Therefore, about 7.37% of all types of encounters (or just over 19 million) were performed by a non-VA care provider or facility on a fee-based inpatient basis. Of that number, about 35.96% (just over 7 million) were inpatient encounters by individuals who lived in R/HR/I areas. The remaining fee-based inpatient encounters outside rural areas totaled just over 12 million (Table 3).

State/Territory Overview

Of all U.S. States and Territories, the State of Texas had the largest number of R/HR/I inpatient encounters in a non-VA health care setting (N=359,210). Non-VA Care (referred throughout Sections III and IV as 'Fee') inpatient encounters by those patients living in R/HR/I areas in Texas represented 25.07% of its total number of Fee inpatient encounters. Other States with high numbers of R/HR/I Fee inpatient encounters included (in rank order): North Carolina (N=317,565), Florida (N= 300,997), Missouri (N=276,194), Georgia (N=254,712), Tennessee (N=248,362), Ohio (N=246,804), Oregon (N=232,677), Illinois (N=220,767), and Pennsylvania (N=212,492). As a portion of the total number of Fee inpatient encounters, the U.S. Virgin Islands, with a total count of 2,219, had the highest percentage of R/HR/I Fee inpatient encounters, predominately insular island, at 94.23%. The State of Vermont followed closely behind with 84.72% of their Fee inpatient encounters by patients living in R/HR/I areas. Vermont had a total of 13,976 Fee inpatient encounters in EOFY-2015, and of that number, 11,841 of those were R/HR/I. Other States also showed a high percentage of R/HR/I Fee inpatient encounters including: Maine (76.77%), Montana (69.19%), South Dakota (65.97%), Kentucky (65.72%), Wyoming (65.57%), Minnesota (62.53%), Mississippi (61.85%), and West Virginia (61.65%). State/Territory Maps 37 and 38 are presented by quartile for volume and percentage of Fee inpatient encounters by those Veteran patients residing in R/HR/I areas. Comparing the two maps show that the Minnesota was the only U.S. State in the upper 25% quartile (darkest purple shade) in terms of number as well as proportion of Fee inpatient encounters by R/HR/I Veteran patients.



Health Services Utilization By Rural Veterans (Inpatient Encounters)



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County Overview

Of the top 10 U.S. counties with the largest number of R/HR/I Inpatient encounters by a non-VA provider or a non-VA medical facility, Douglas County, Oregon ranked the highest with 56,479 encounters. In addition, three counties in Arizona were among the top 10, which included (in rank order): Mohave County (N=42,499), Yavapai County (N=33,377), and Maricopa County (N=24,801). Hawaii also had two counties in the top 10, including: Hawaii County (N=53,972) and Kauai County (N=21,661). In Alaska, Matanuska-Susitna Borough County (N=40,345) and Kenai Peninsula Borough (N=25,420) were also ranked among the top 10. The final two counties among the top 10 included Grant County, Indiana (N=22,689) and Ross County, Ohio (N=21,549). County Maps 39 and 40 graphically display Fee R/HR/I inpatient encounters- first the volume data by four classes (quartiles), then percentage data by two classes, due to almost half of U.S. counties with a rate of 100% Fee R/HR/I inpatient encounters to all Fee inpatient encounters.



Table 3: Non-VA Care (Fee) Inpatient Encounters by Rurality, EOFY-2015

U.S. State	Total Number of All Encounters	Fee Inpatient Encounters				
		TOTAL	Rurality			
		N	R/HR/I	%	Urban & Unknown	%
Alabama	4,725,449	445,991	204,816	45.92	241,175	54.08
Alaska	920,490	213,340	108,878	51.03	104,462	48.97
Arizona	6,152,886	500,349	160,616	32.10	339,733	67.90
Arkansas	4,404,227	199,875	110,320	55.19	89,555	44.81
California	18,788,531	803,849	166,023	20.65	637,826	79.35
Colorado	4,285,984	459,500	104,676	22.78	354,824	77.22
Connecticut	2,195,244	140,040	19,173	13.69	120,867	86.31
Delaware	652,454	50,532	14,299	28.30	36,233	71.70
District of Columbia	484,556	7,628	110	1.44	7,518	98.56
Florida	24,319,909	2,457,952	300,997	12.25	2,156,955	87.75
Georgia	8,159,168	697,001	254,712	36.54	442,289	63.46
Hawaii	1,109,862	204,564	99,362	48.57	105,202	51.43
Idaho	1,724,451	137,775	66,084	47.97	71,691	52.03
Illinois	8,602,045	467,644	220,767	47.21	246,877	52.79
Indiana	5,358,795	424,976	195,084	45.90	229,892	54.10
Iowa	2,952,195	158,444	90,247	56.96	68,197	43.04
Kansas	2,804,062	172,036	81,426	47.33	90,610	52.67
Kentucky	4,685,357	289,914	190,522	65.72	99,392	34.28
Louisiana	4,189,001	527,363	153,867	29.18	373,496	70.82
Maine	1,618,133	145,605	111,783	76.77	33,822	23.23
Maryland	3,529,388	132,278	28,730	21.72	103,548	78.28
Massachusetts	3,907,775	188,797	19,241	10.19	169,556	89.81
Michigan	6,281,934	416,551	211,092	50.68	205,459	49.32
Minnesota	4,775,341	323,894	202,542	62.53	121,352	37.47
Mississippi	3,091,610	229,256	141,802	61.85	87,454	38.15
Missouri	6,553,493	499,925	276,194	55.25	223,731	44.75
Montana	1,662,822	228,974	158,424	69.19	70,550	30.81
Nebraska	1,950,989	130,710	68,590	52.47	62,120	47.53
Nevada	3,521,592	425,697	69,273	16.27	356,424	83.73



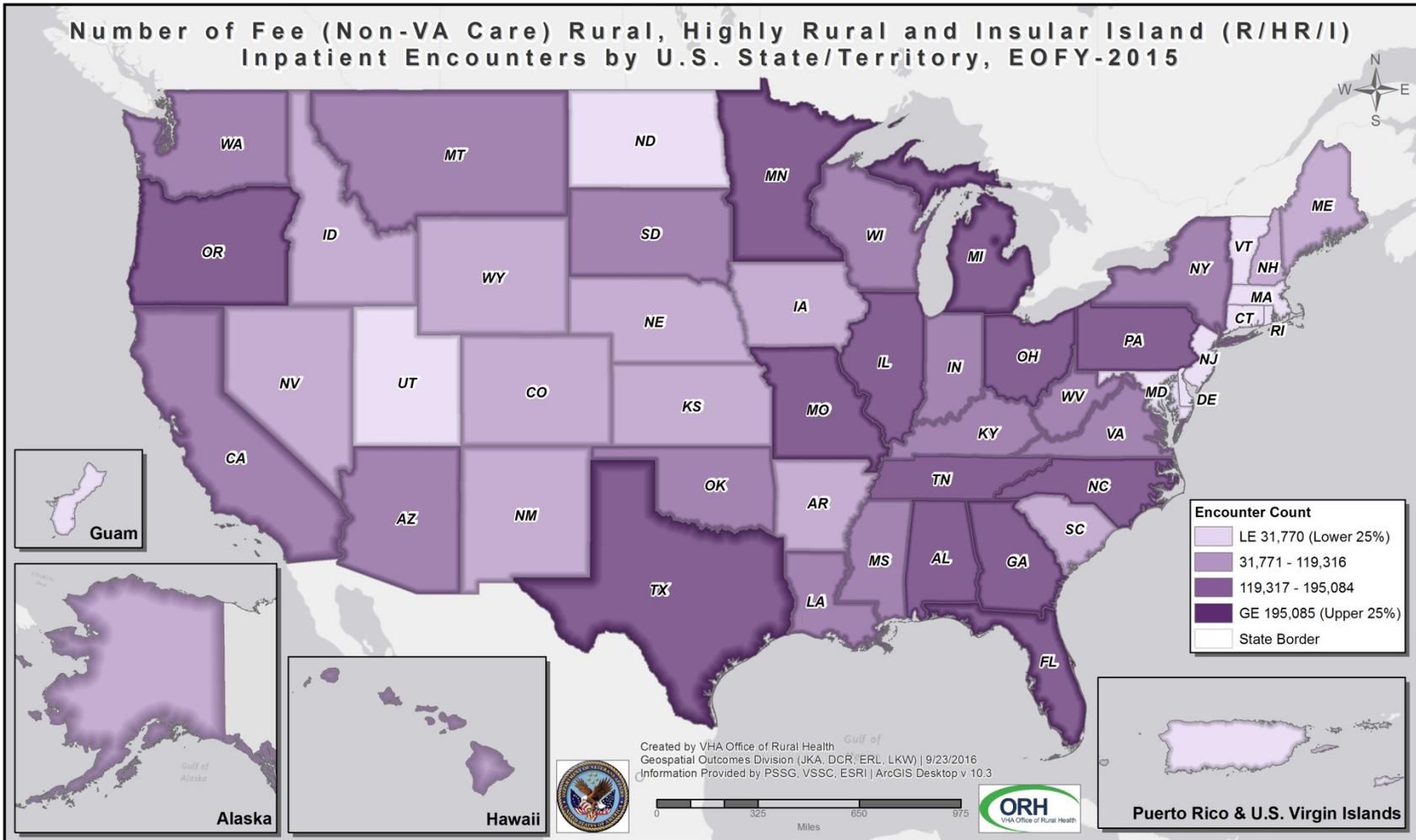
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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U.S. State	Total Number of All Encounters	Fee Inpatient Encounters				
		TOTAL	Rurality			
		N	R/HR/I	%	Urban & Unknown	%
New Hampshire	1,284,222	111,924	43,542	38.90	68,382	61.10
New Jersey	2,914,303	109,840	15,036	13.69	94,804	86.31
New Mexico	2,255,859	159,729	86,863	54.38	72,866	45.62
New York	10,958,932	437,052	176,389	40.36	260,663	59.64
North Carolina	9,288,198	706,544	317,565	44.95	388,979	55.05
North Dakota	690,898	56,576	31,770	56.15	24,806	43.85
Ohio	11,419,809	633,655	246,804	38.95	386,851	61.05
Oklahoma	3,732,794	307,940	184,177	59.81	123,763	40.19
Oregon	4,049,315	466,604	232,677	49.87	233,927	50.13
Pennsylvania	9,725,572	647,495	212,492	32.82	435,003	67.18
Rhode Island	899,629	35,702	2,820	7.90	32,882	92.10
South Carolina	5,169,084	301,169	119,316	39.62	181,853	60.38
South Dakota	1,551,691	187,168	123,484	65.97	63,684	34.03
Tennessee	6,375,139	537,051	248,362	46.25	288,689	53.75
Texas	19,230,023	1,432,830	359,210	25.07	1,073,620	74.93
Utah	1,882,062	145,461	28,560	19.63	116,901	80.37
Vermont	621,057	13,976	11,841	84.72	2,135	15.28
Virginia	6,432,606	356,001	128,764	36.17	227,237	63.83
Washington	4,705,262	514,610	153,840	29.89	360,770	70.11
West Virginia	3,229,567	219,277	135,184	61.65	84,093	38.35
Wisconsin	5,437,742	284,354	155,941	54.84	128,413	45.16
Wyoming	911,394	97,762	64,107	65.57	33,655	34.43
U.S. Outlying Territories						
American Samoa	742	18	0	0.00	18	100.00
Federated States of Micronesia	482	115	0	0.00	115	100.00
Guam	168,226	28,570	399	1.40	28,171	98.60
Marshall Islands	156	0	0	0.00	0	0.00
Northern Mariana Islands	8,040	1,482	0	0.00	1,482	100.00
Palau	46	0	0	0.00	0	0.00
Puerto Rico	3,471,970	152,911	8,690	5.68	144,221	94.32
U.S. Virgin Islands	45,552	2,219	2,091	94.23	128	5.77
*Unassigned State/Territory	4,471,007	465,375	91,279	19.61	374,096	80.39
TOTAL	264,339,122	19,493,870	7,010,853	35.96	12,483,017	64.04



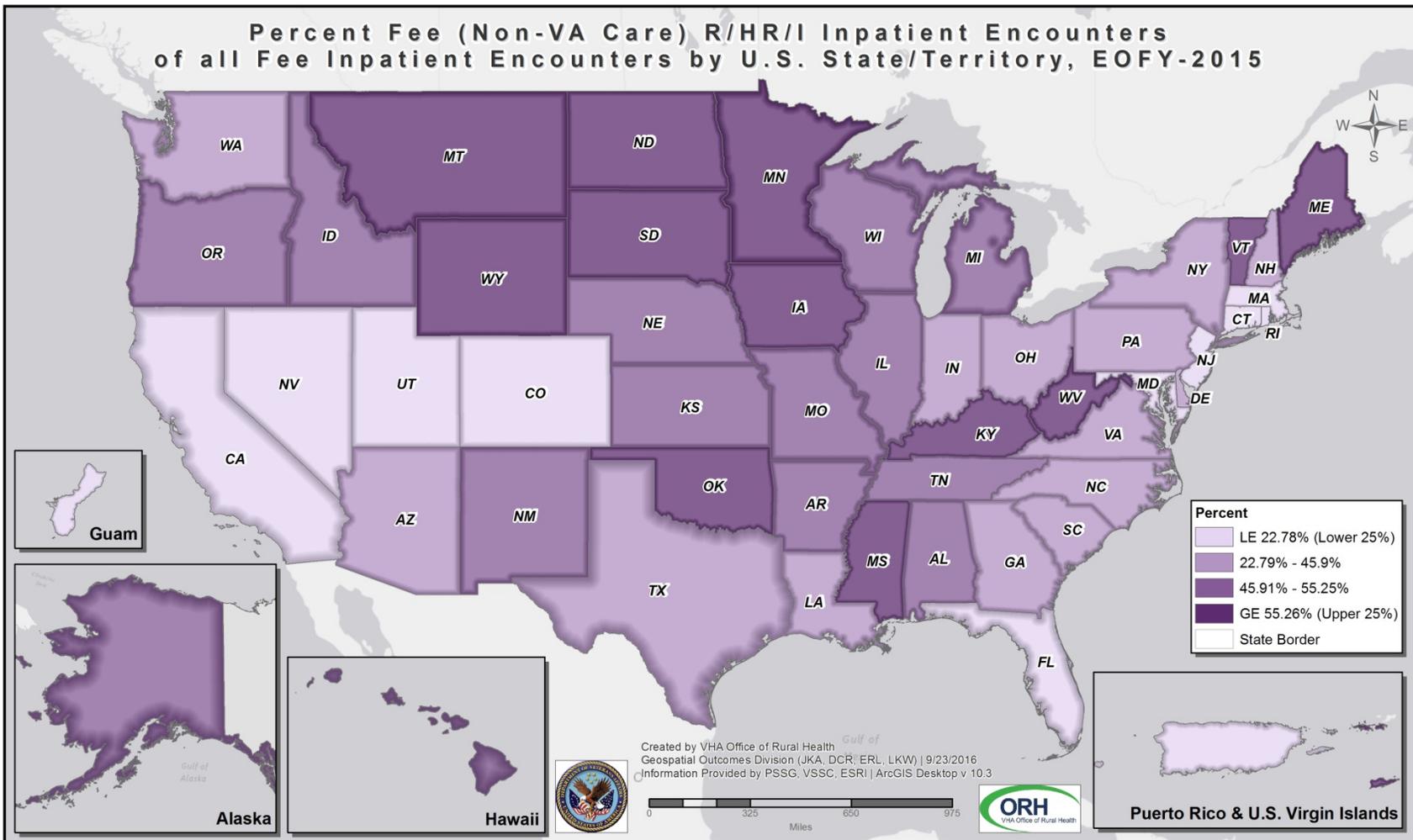
Map 37



Health Services Utilization By Rural Veterans (Inpatient Encounters)



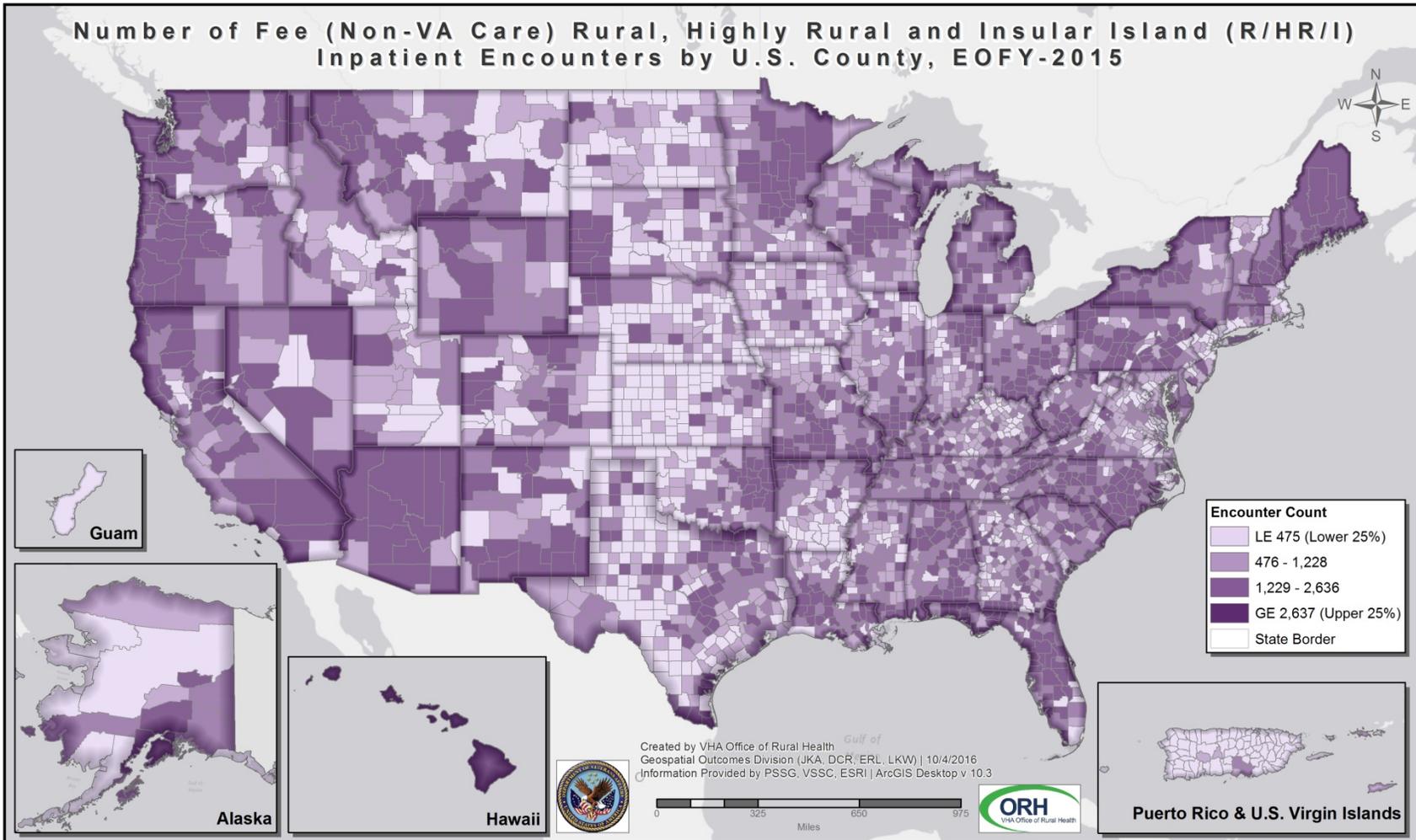
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Map 38



Number of Fee (Non-VA Care) Rural, Highly Rural and Insular Island (R/HR/I) Inpatient Encounters by U.S. County, EOFY-2015



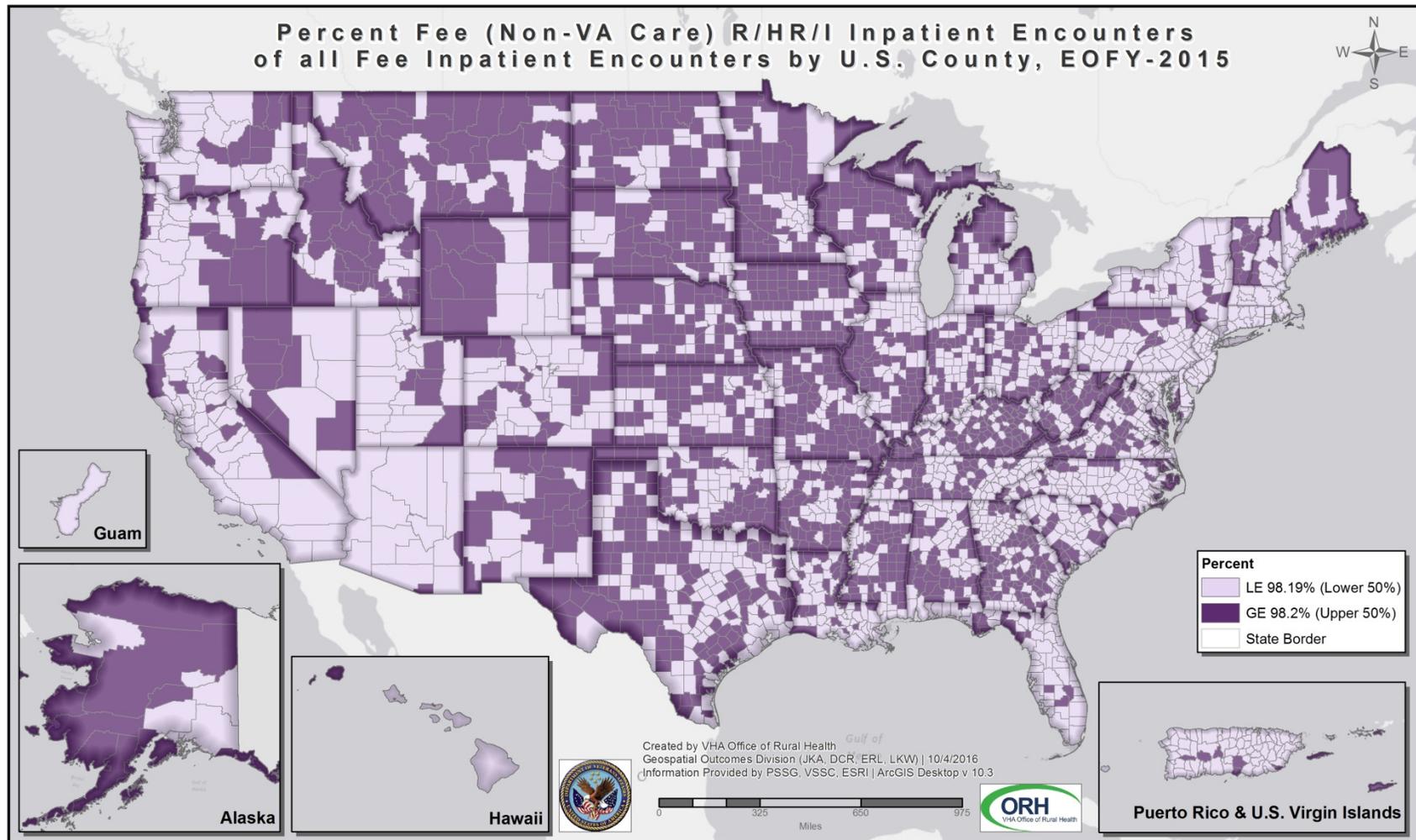
Map 39



Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 40



Section IV: Non-VA Inpatient Encounters for Combined Rural (R/HR/I) Subgroups

GENDER

Table 4 further illustrates Fee Inpatient Encounters by R/HR/I patients in each U.S. State/Territory, broken down by patient gender (number and percentage).

MALES

On the national level, Fee encounters in an inpatient setting by male patients in R/HR/I areas represented the majority (92.86%) of the total number of Fee inpatient encounters. On the State/Territory level, in Guam, all 399 R/HR/I Fee Inpatient Encounters were by male patients of these types (100.0%). Other States/Territories with the greatest percentages of these types of encounters by male patients, which exceed the national overall percentage, included: Hawaii (96.77%), New Jersey (95.32%), Rhode Island (95.28%), West Virginia (95.24%), Kentucky (94.94%), Iowa (94.94%), Illinois (94.89%), Nebraska (94.5%), and Ohio (94.49%).

The map series from Map 41 to Map 44 provide visual displays of the numbers and percentages of Fee inpatient encounters by R/HR/I male Veteran patients at the State/Territory and County levels. Four of the U.S. States/Territories, as shown on Maps 41 and 42, had both a high volume and high proportion (in upper 25% quartile) of male Fee R/HR/I inpatient encounters as a percent of all Fee R/HR/I Inpatient encounters. Those were Illinois, Michigan, Minnesota, and Ohio. County Maps 43 and 44 graphically display Fee R/HR/I inpatient encounters- first the volume data by four classes (quartiles), then percentage data by two classes, due to almost half of U.S. counties with a rate of 100% Male Fee R/HR/I inpatient encounters to all Fee inpatient encounters. The highest quartiles for all the maps are designated by the darkest shade of purple.



Health Services Utilization By Rural Veterans (Inpatient Encounters)



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**Table 4: Non-VA Care (Fee) Rural, Highly Rural & Insular Island (R/HR/I) Inpatient Encounters
by Gender, Age Group, Race, and Service Era, EOFY-2015**

U.S. State	R/HR/I Fee Inpatient Encounters	Gender (%)		Age Group (%)					Race (%)				Service Era (%)	
		F	M	<45	45-54	55-64	65-74	75+	White Cauc	Black Afr Am	Other*	Missing	OEF/OIF	Other
Alabama	204,816	7.35	92.65	11.64	12.98	33.60	31.52	10.26	67.43	29.27	3.30	3.26	9.12	90.88
Alaska	108,878	7.12	92.88	8.40	10.53	22.32	38.67	20.08	89.29	2.42	8.29	7.53	5.68	94.32
Arizona	160,616	7.48	92.52	5.89	6.34	25.71	45.95	16.11	89.00	3.92	7.08	7.36	3.28	96.72
Arkansas	110,320	6.70	93.30	6.54	9.57	28.56	39.64	15.68	89.85	6.57	3.57	2.10	4.58	95.42
California	166,023	6.67	93.33	8.31	7.07	28.69	39.84	16.09	90.21	4.46	5.33	9.95	5.10	94.90
Colorado	104,676	9.55	90.45	10.80	10.30	23.59	40.18	15.12	94.37	1.72	3.91	8.63	7.48	92.52
Connecticut	19,173	7.90	92.10	17.92	12.56	21.56	40.88	7.08	97.32	1.27	1.40	1.23	9.29	90.71
Delaware	14,299	6.08	93.92	8.83	8.45	28.79	44.03	9.90	83.44	13.08	3.48	3.29	6.75	93.25
District of Columbia	110	100.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	100.00
Florida	300,997	10.05	89.95	9.35	12.84	32.56	34.39	10.86	84.28	12.84	2.87	5.04	5.84	94.16
Georgia	254,712	6.38	93.62	9.61	11.88	35.11	32.35	11.04	67.47	29.77	2.76	3.59	5.74	94.26
Hawaii	99,362	3.23	96.77	2.20	3.78	19.48	43.67	30.87	56.11	1.40	42.48	1.58	2.37	97.63
Idaho	66,084	8.71	91.29	11.01	8.53	23.83	36.92	19.71	94.44	0.88	4.68	11.73	5.97	94.03
Illinois	220,767	5.11	94.89	5.97	6.39	26.59	41.09	19.97	94.59	3.55	1.85	4.33	4.08	95.92
Indiana	195,084	5.63	94.37	8.45	9.79	26.91	38.32	16.53	96.65	2.45	0.91	2.26	5.77	94.23
Iowa	90,247	5.06	94.94	7.30	6.52	26.25	43.82	16.10	96.40	1.97	1.62	1.53	4.54	95.46
Kansas	81,426	7.92	92.08	10.78	9.75	29.20	35.04	15.23	93.30	4.48	2.22	3.83	6.81	93.19
Kentucky	190,522	5.06	94.94	7.67	9.07	26.04	41.24	15.98	92.61	5.52	1.87	5.19	4.67	95.33
Louisiana	153,867	8.47	91.53	8.03	10.11	31.54	36.83	13.49	61.37	34.42	4.21	3.16	5.19	94.81
Maine	111,783	7.41	92.59	6.19	8.13	24.76	44.30	16.62	94.31	0.88	4.80	3.55	3.37	96.63
Maryland	28,730	8.77	91.23	8.77	10.18	30.40	36.05	14.59	59.61	31.70	8.69	5.15	4.10	95.90
Massachusetts	19,241	9.94	90.06	6.88	6.62	17.06	47.13	22.32	95.89	1.76	2.35	2.71	7.08	92.92
Michigan	211,092	5.71	94.29	8.02	7.94	26.75	45.19	12.09	93.90	2.03	4.08	3.11	5.71	94.29
Minnesota	202,542	5.57	94.43	5.78	7.40	20.95	44.18	21.69	95.83	0.91	3.26	12.03	4.01	95.99
Mississippi	141,802	8.67	91.33	12.23	13.65	34.37	31.29	8.46	60.88	36.99	2.13	1.96	7.34	92.66
Missouri	276,194	7.25	92.75	8.63	8.55	29.33	37.19	16.29	95.43	2.60	1.97	3.04	5.50	94.50
Montana	158,424	8.47	91.53	7.91	6.92	26.78	39.87	18.52	93.60	0.39	6.00	4.54	5.78	94.22
Nebraska	68,590	5.50	94.50	7.68	7.52	21.76	41.68	21.36	96.77	0.37	2.85	4.77	5.04	94.96
Nevada	69,273	6.16	93.84	6.85	8.47	23.08	43.70	17.90	91.65	3.66	4.69	6.12	5.88	94.12

*Race-Other category includes American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, or Multiple (those who identify as more than one race)



U.S. State	R/HR/I Fee Inpatient Encounters	Gender (%)		Age Group (%)					Race (%)				Service Era (%)	
		F	M	<45	45-54	55-64	65-74	75+	White Cauc	Black Afr Am	Other*	Missing	OEF/OIF	Other
New Hampshire	43,542	8.76	91.24	9.96	8.19	22.84	39.44	19.57	96.19	0.33	3.49	6.07	9.13	90.87
New Jersey	15,036	4.68	95.32	15.00	14.24	17.33	39.03	14.39	86.24	10.91	2.85	4.21	10.82	89.18
New Mexico	86,863	9.32	90.68	9.57	9.95	26.32	37.72	16.44	81.96	4.98	13.06	26.45	5.38	94.62
New York	176,389	9.44	90.56	11.07	9.33	25.25	35.92	18.42	94.28	4.13	1.59	2.76	6.82	93.18
North Carolina	317,565	6.19	93.81	8.06	11.06	30.95	38.51	11.42	69.57	25.59	4.84	2.61	5.11	94.89
North Dakota	31,770	6.76	93.24	10.37	9.11	28.63	35.72	16.17	92.90	1.23	5.86	7.96	5.93	94.07
Ohio	246,804	5.51	94.49	5.54	8.91	28.97	41.69	14.89	95.34	3.00	1.67	3.99	3.15	96.85
Oklahoma	184,177	6.04	93.96	5.33	5.89	27.75	42.23	18.80	83.73	5.28	10.99	3.67	2.35	97.65
Oregon	232,677	7.96	92.04	6.19	6.26	24.49	44.58	18.48	94.29	0.63	5.08	8.21	3.18	96.82
Pennsylvania	212,492	7.28	92.72	8.96	7.94	25.50	37.01	20.59	94.53	1.88	3.59	0.78	4.79	95.21
Rhode Island	2,820	4.72	95.28	11.74	8.44	17.23	43.72	18.87	100.00	0.00	0.00	0.00	15.64	84.36
South Carolina	119,316	7.18	92.82	9.63	14.76	35.57	32.60	7.44	61.17	35.02	3.81	3.32	6.25	93.75
South Dakota	123,484	7.10	92.90	5.06	9.72	23.14	36.53	25.54	88.46	0.78	10.76	3.85	3.70	96.30
Tennessee	248,362	6.17	93.83	6.42	10.34	27.39	40.85	15.00	89.14	8.50	2.36	5.44	5.32	94.68
Texas	359,210	8.05	91.95	11.42	9.44	33.26	34.32	11.56	87.21	8.91	3.88	8.98	6.09	93.91
Utah	28,560	13.19	86.81	20.74	9.58	27.94	34.85	6.89	97.77	0.94	1.29	1.52	10.22	89.78
Vermont	11,841	11.16	88.84	14.77	9.40	17.69	43.31	14.83	92.91	0.95	6.14	1.86	9.58	90.42
Virginia	128,764	5.93	94.07	7.53	8.85	30.20	38.50	14.92	77.43	19.97	2.60	5.74	4.09	95.91
Washington	153,840	8.07	91.93	7.05	7.68	25.72	45.16	14.40	94.25	2.03	3.72	9.60	3.88	96.12
West Virginia	135,184	4.76	95.24	7.36	7.06	18.62	46.43	20.53	93.59	3.11	3.30	1.97	5.15	94.85
Wisconsin	155,941	8.11	91.89	8.12	9.43	24.13	42.32	16.01	95.62	0.84	3.53	3.53	6.37	93.63
Wyoming	64,107	9.77	90.23	9.27	9.84	29.17	37.06	14.66	94.73	0.97	4.29	3.41	6.42	93.58
U.S. Outlying Territories														
American Samoa	0													
Micronesia	0													
Guam	399	0.00	100.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	100.00	0.00	100.00
Marshall Islands	0													
N. Mariana Islands	0													
Palau	0													
Puerto Rico	8,690	8.93	91.07	27.05	25.14	24.42	21.01	2.37	87.60	9.20	3.20	7.09	37.89	62.11
U.S. Virgin Islands	2,091	9.33	90.67	10.62	0.00	61.84	22.29	5.26	39.84	60.16	0.00	0.00	2.39	97.61
Unassigned State/Terr.	91,279	8.35	88.72	8.87	7.14	26.99	37.79	16.28	79.35	10.67	9.98	9.22	4.40	95.60
TOTAL	7,010,853	7.10	92.86	8.26	9.16	27.75	39.11	15.68	86.46	9.01	4.53	5.15	5.27	94.73

*Race-Other category includes American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, or Multiple (those who identify as more than one race)



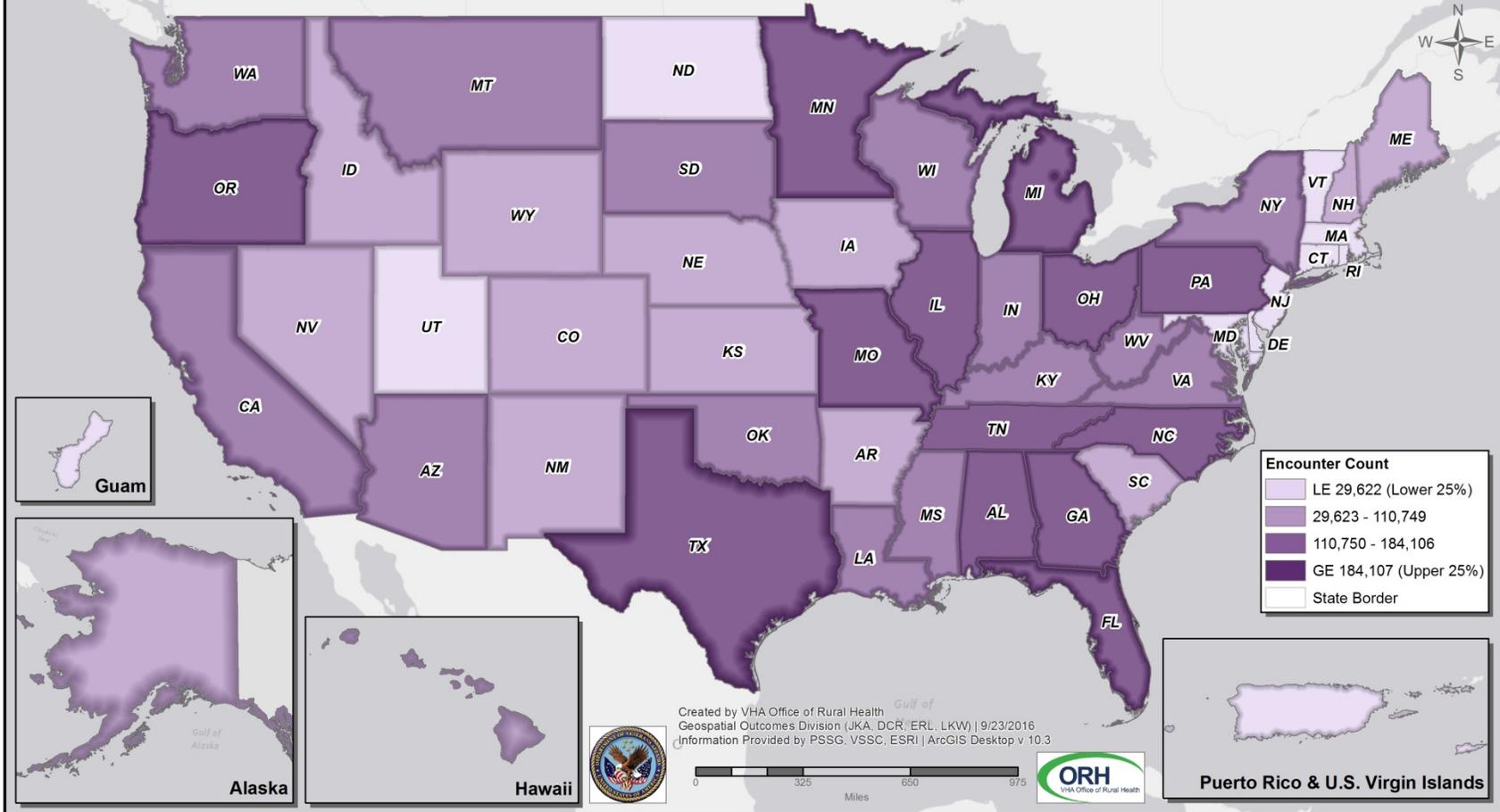
Health Services Utilization By Rural Veterans (Inpatient Encounters)



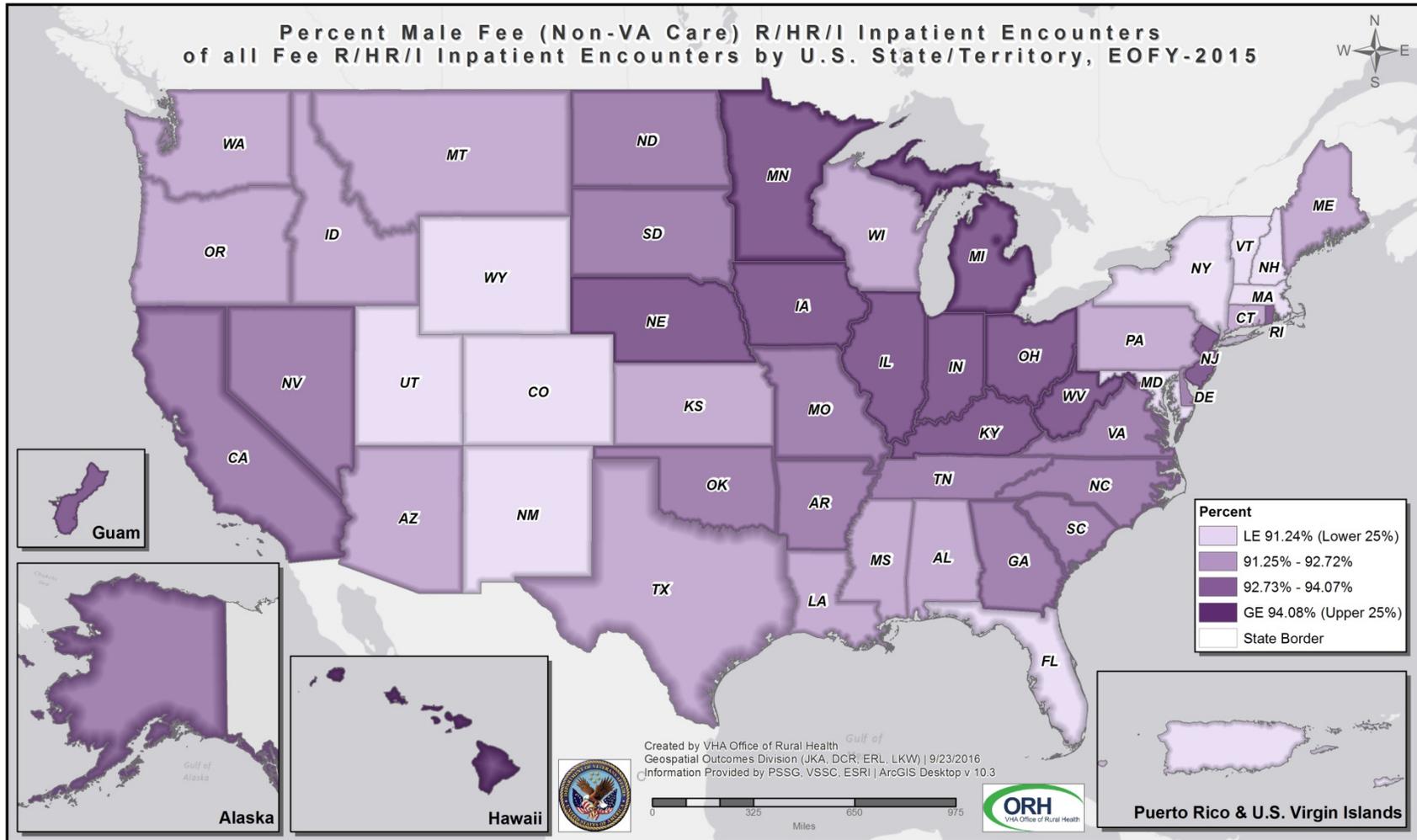
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Number of Male Fee (Non-VA Care) Rural, Highly Rural and Insular Island (R/HR/I) Inpatient Encounters by U.S. State/Territory, EOFY-2015



Map 41



Map 42



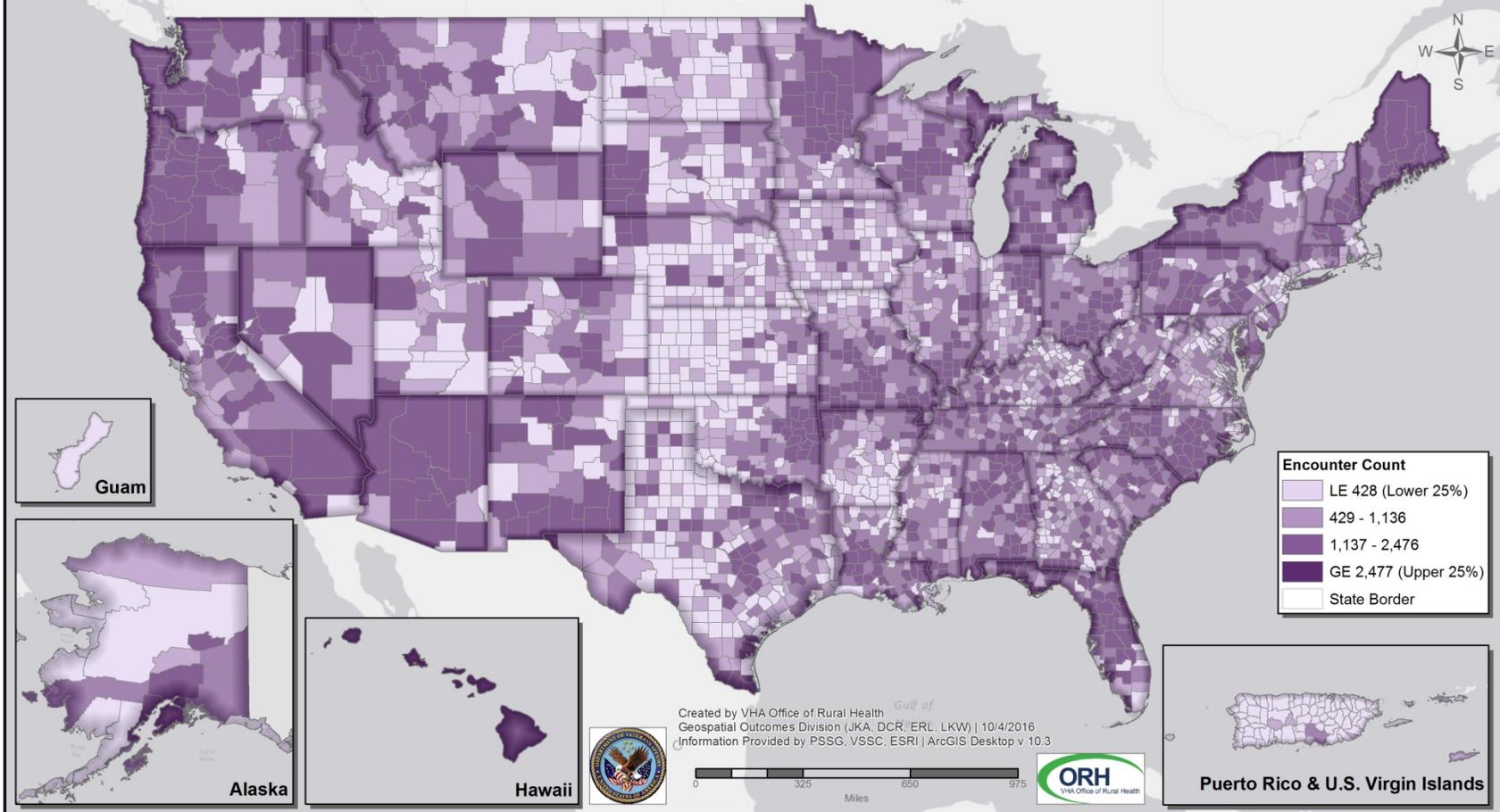
Health Services Utilization By Rural Veterans (Inpatient Encounters)



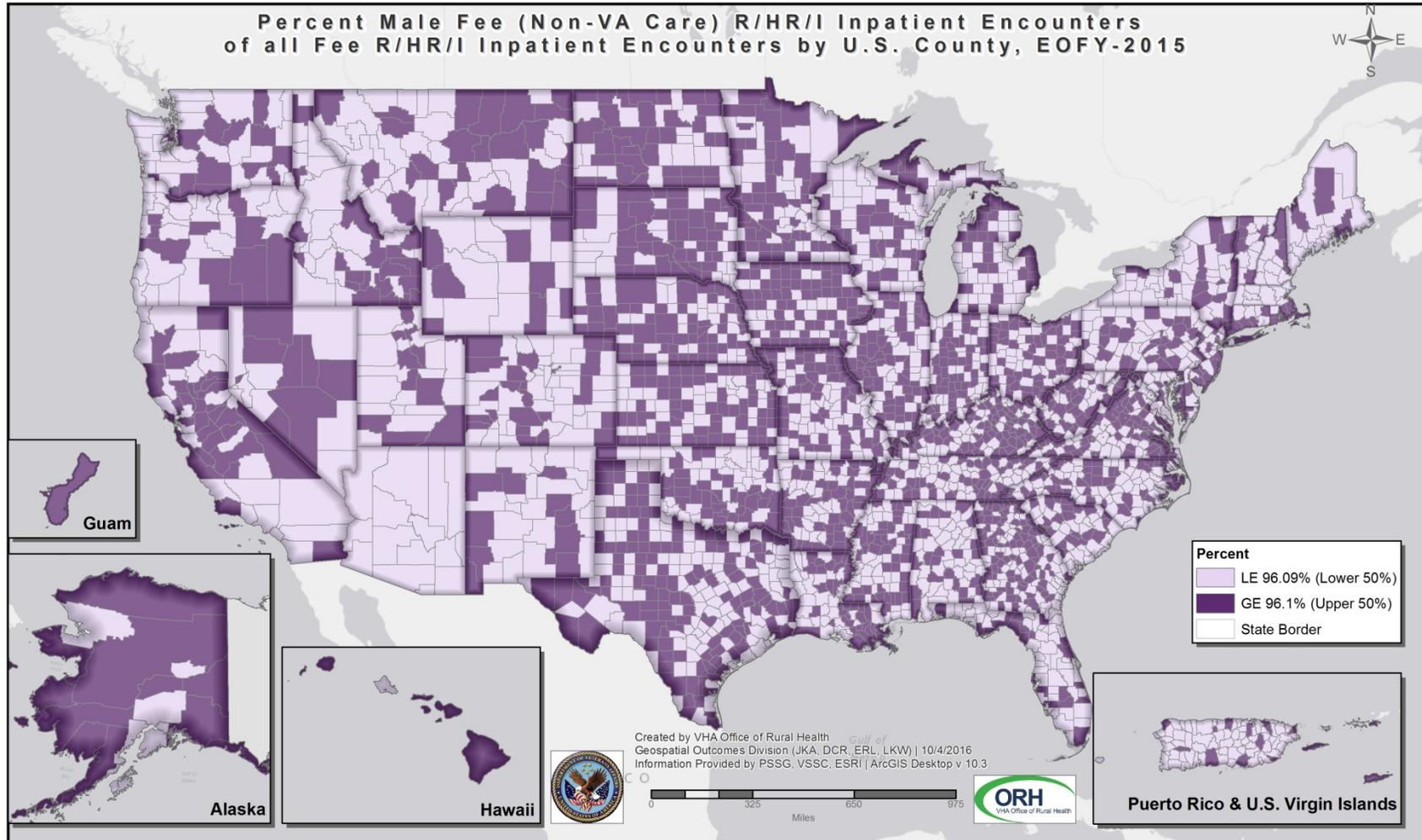
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Number of Male Fee (Non-VA Care) Rural, Highly Rural and Insular Island (R/HR/I) Inpatient Encounters by U.S. County, EOFY-2015



Map 43



Map 44



Health Services Utilization By Rural Veterans (Inpatient Encounters)



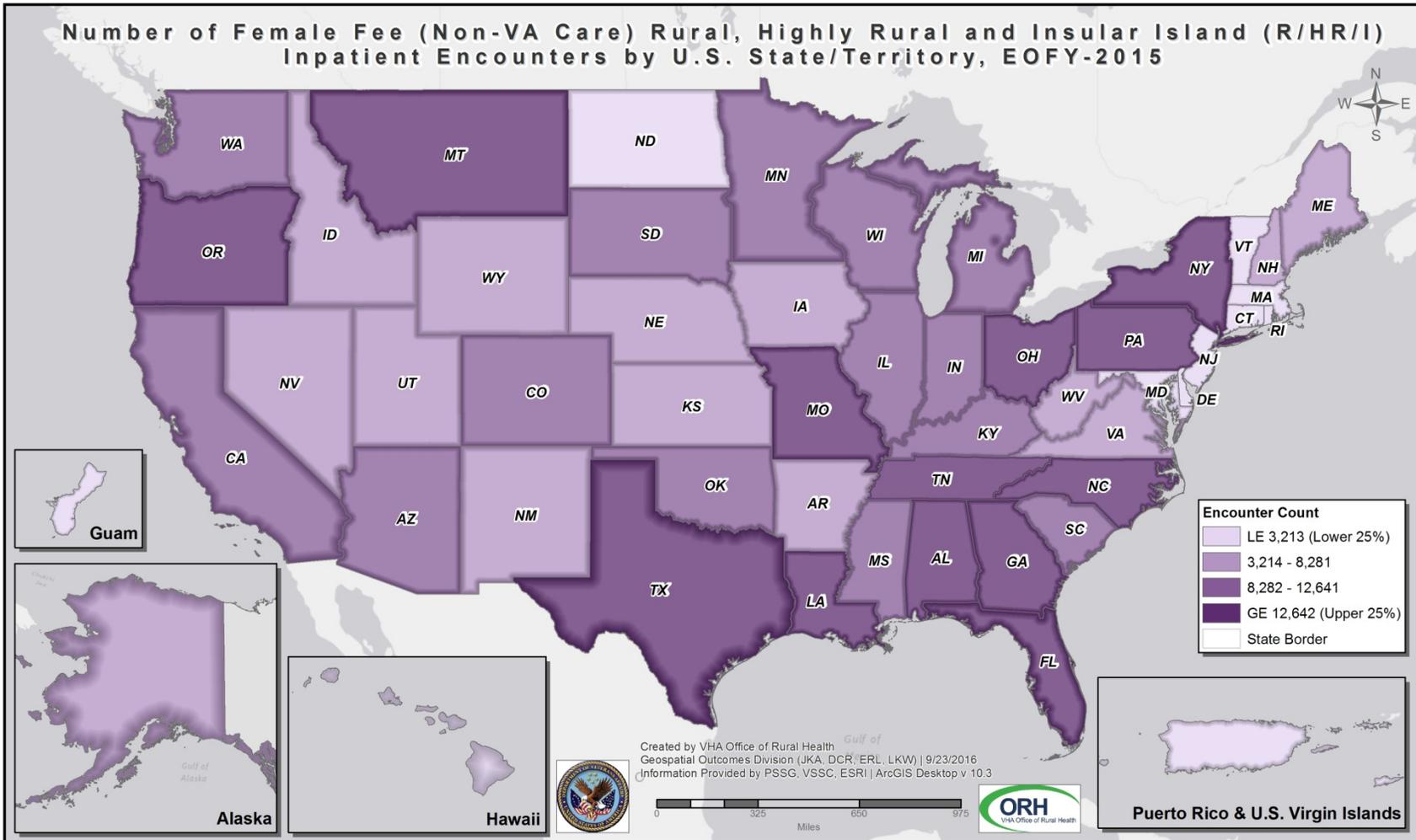
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FEMALES

In comparison to men, a much smaller percentage of Fee inpatient encounters by women living in R/HR/I areas comprised of just 7.1% nationally of the total number of Fee inpatient encounters. On the State/Territory level, in District of Columbia, all 110 R/HR/I Fee inpatient Encounters were by female patients of these types (100.0%). Other States/Territories with the greatest percentages of these types of encounters by female patients, which exceed the national overall percentage, included: Utah (13.19%), Vermont (11.16%), Florida (10.05%), Massachusetts (9.94%), Wyoming (9.77%), Colorado (9.55%), New York (9.44%), U.S. Virgin Islands (9.33%), and New Mexico (9.32%).

Maps 45 and 46 provide visual displays of R/HR/I female inpatient encounters by a non-VA provider or at a non-VA medical establishment, mapped out by State/Territory. The highest 25% in terms of volume and proportion are designated by the darkest shade of purple. Florida and New York were the only U.S. States that had both a high volume and high proportion (in upper 25% quartile) of female Fee R/HR/I inpatient encounters as a percent of all Fee R/HR/I inpatient encounters. Because of very low numbers of these types of encounters by R/HR/I females at the County level of aggregation, maps by County were not generated to protect patient confidentiality.



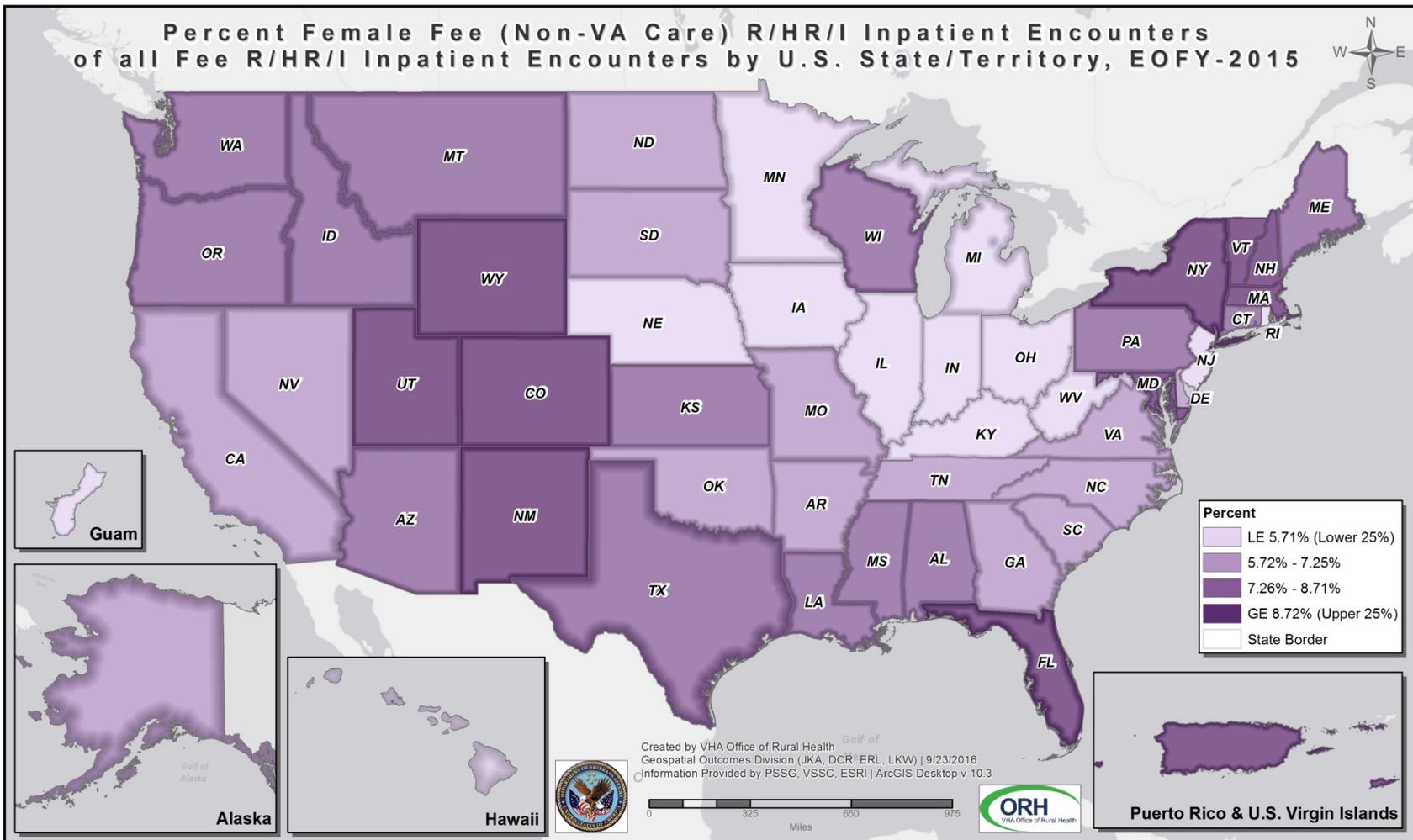
Map 45



Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 46



AGE GROUP

OVERALL

Various age groups of Veteran patients residing in R/HR/I areas are compared on how they seek or receive health care services, particularly from non-VA medical providers or facilities on an inpatient basis. Table 4 shows that, nationwide, the 65-74 age group had the highest percentage of Fee R/HR/I inpatient encounters (39.11%), and had the highest representation in most U.S. States/Territories as well. Several exceptions, where there were more Fee inpatient encounters in the age 55 to 64 category, included the District of Columbia, U.S. Virgin Islands, South Carolina, Alabama, Mississippi, and Georgia. All Fee inpatient encounters by R/HR/I patients below age 55 were least represented nationally (ages 45 to 54 at 9.16%, followed by those under the age of 45 at 8.26%).

UNDER THE AGE OF 45

On the national level, Fee inpatient encounters by R/HR/I patients *under the age of 45* comprised 8.26% of the total number of all Fee R/HR/I inpatient encounters. The top 10 States/Territories with the greatest percentage of these younger patients, which exceed the national overall percentage, included: Puerto Rico (27.05%), Utah (20.74%), Connecticut (17.92%), New Jersey (15.0%), Vermont (14.77%), Mississippi (12.23%), Rhode Island (11.74%), Alabama (11.64%), Texas (11.42%), and New York (11.07%).

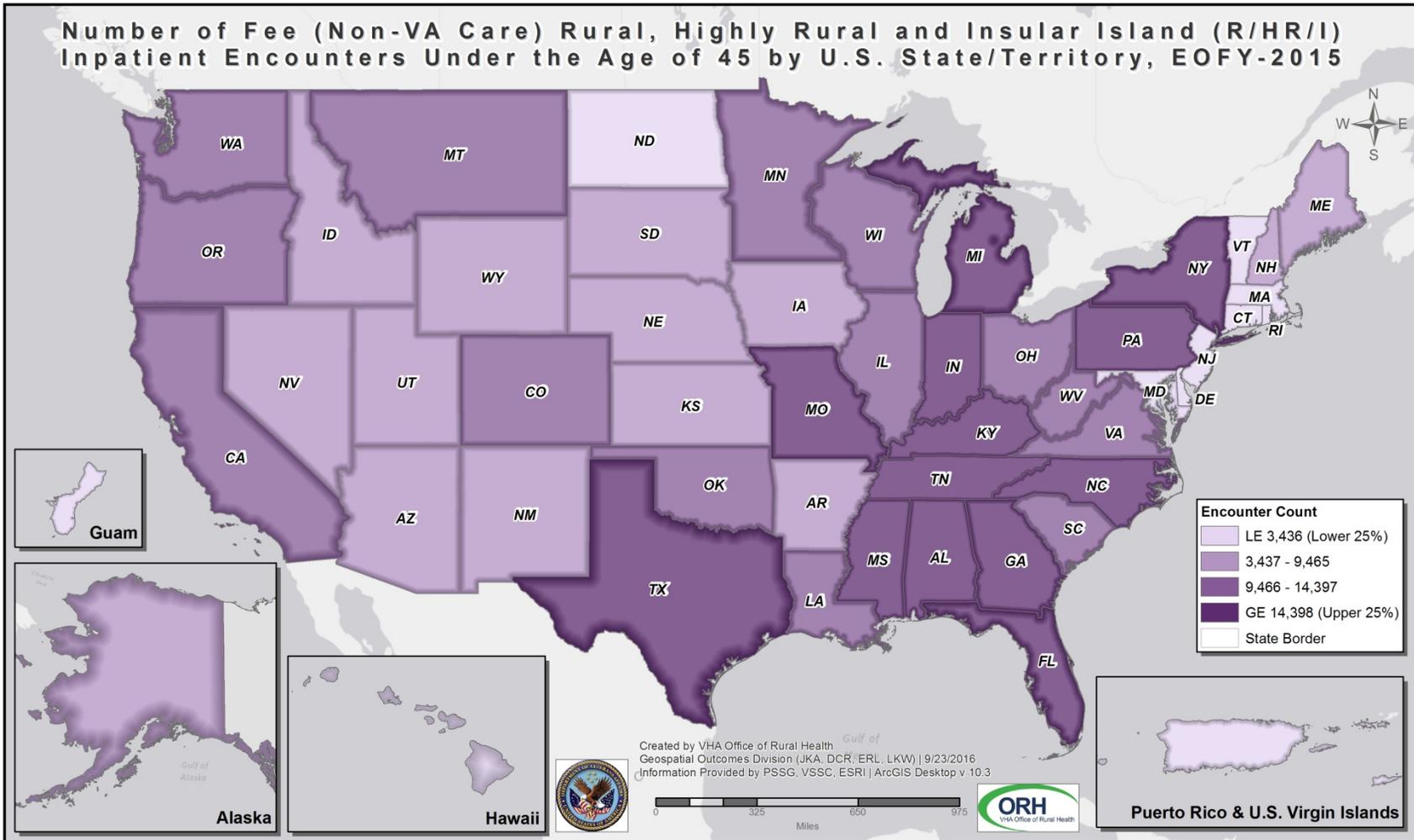
The maps in the next series focus on those R/HR/I patients *under the age of 45* who had an inpatient encounter at a non-VA health care facility or by a non-VA medical provider. These data are mapped at the State/Territory and county levels of aggregation. The denominator for the percentages is the number of all R/HR/I patients who had non-VA care (Fee) inpatient encounters. In Maps 47 and 48, displayed by State, data are divided into four equally statistical classes, with the highest 25% in terms of volume and percentage are designated by the darkest shade of purple. Four U.S. States showed both a high volume and high proportion (in upper 25% quartile) of Fee inpatient encounters by those patients *under the age of 45*. Those were Alabama, Mississippi, New York, and Texas. The county level maps 49 and 50 divided the data into two classes because nearly half of counties had zero Fee inpatient encounters by those patients *under the age of 45*. Therefore, in an effort to protect confidentiality of patients, the county maps were generated to display the highest one-half in terms of volume and percentage, designated by the darkest shade of purple.



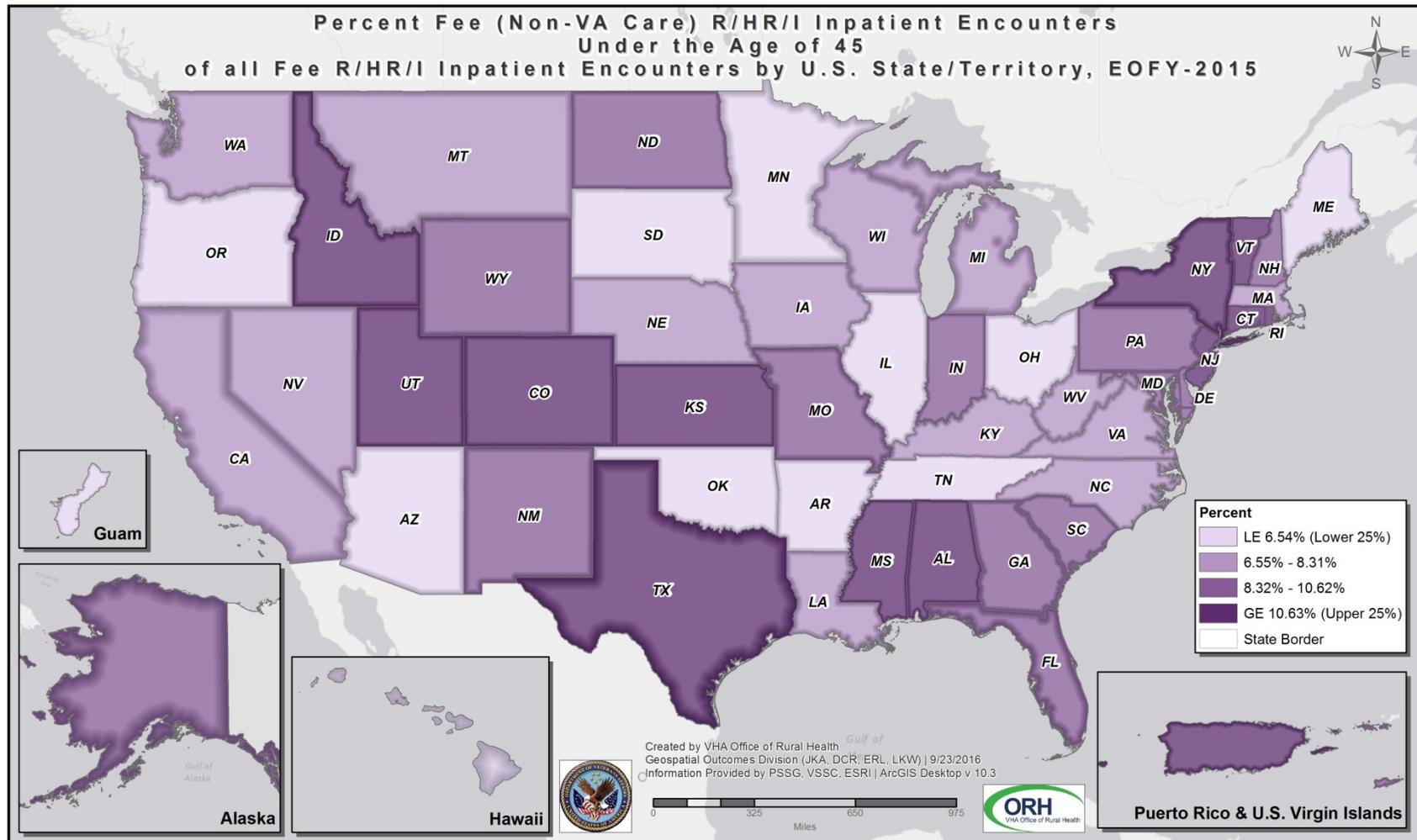
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Map 47



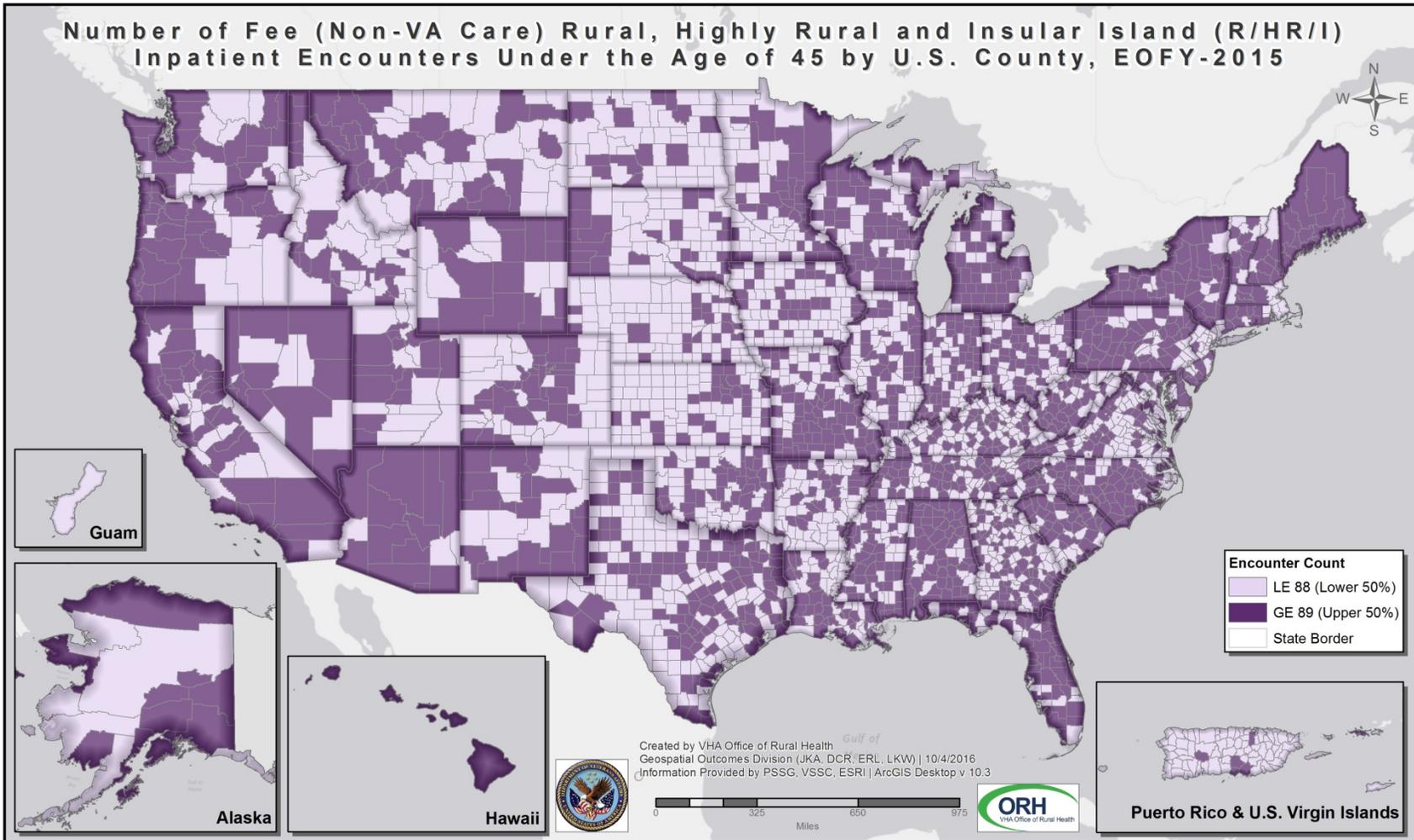
Map 48



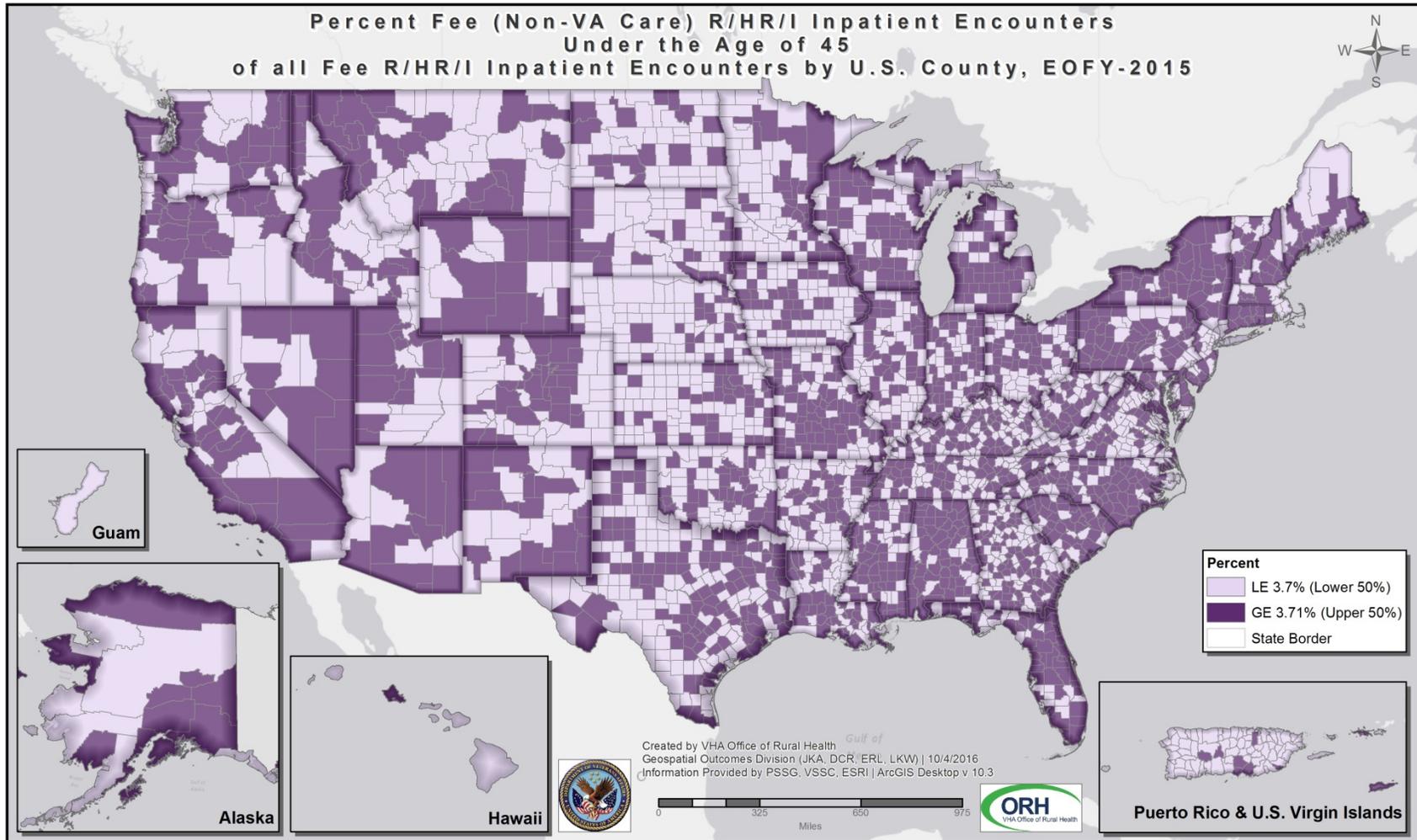
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Map 49



Map 50



Health Services Utilization By Rural Veterans (Inpatient Encounters)



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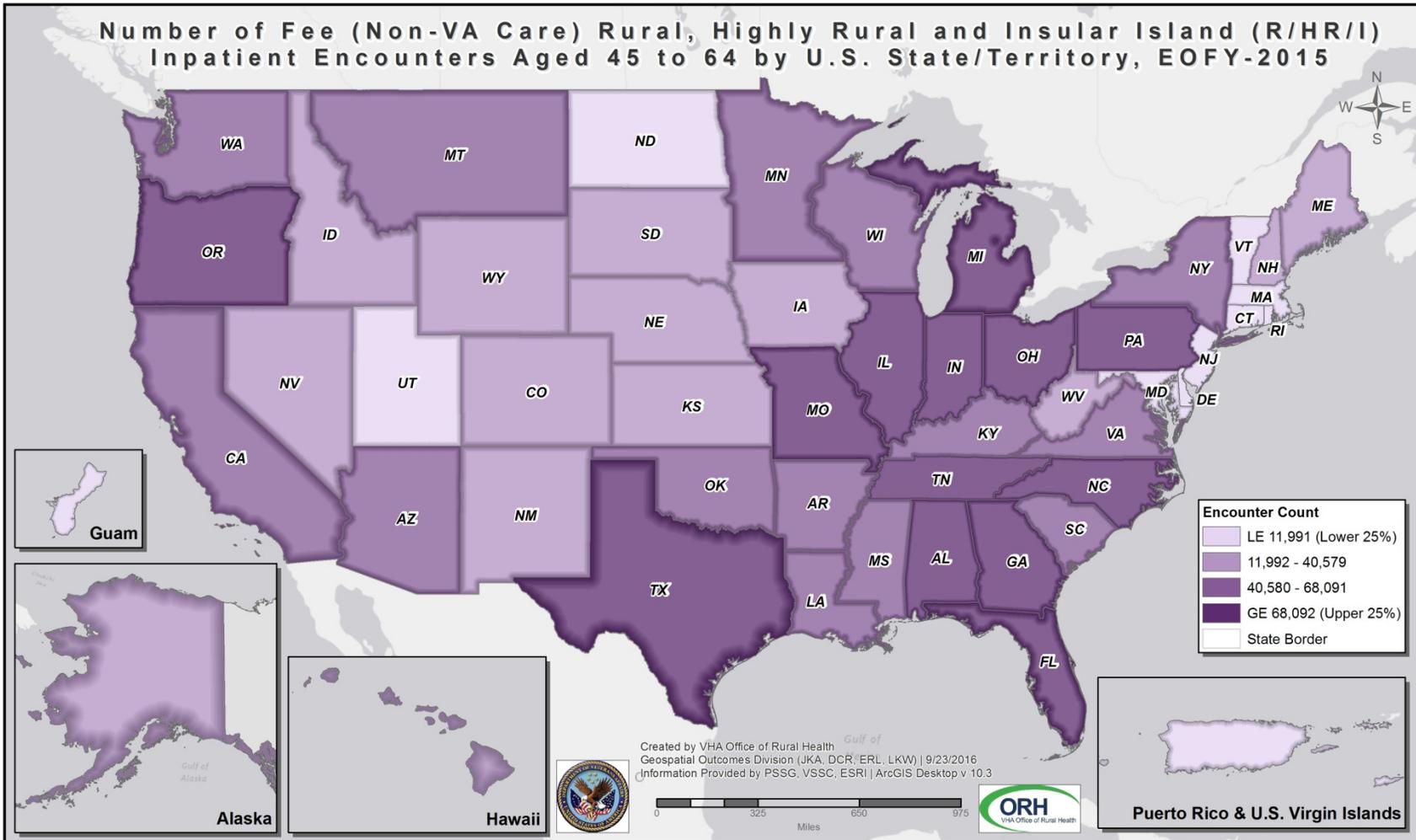


AGES 45 TO 64

Table 4 shows statistics for Fee R/HR/I inpatient encounters by those patients *aged 45 to 54*, which represent 9.16% of all Fee R/HR/I inpatient encounters across the nation. The top 10 States/Territories with the greatest percentage of Veteran patients in this age group, which exceed the national overall percentage, included: Puerto Rico (25.14%), South Carolina (14.76%), New Jersey (14.24%), Mississippi (13.65%), Alabama (12.98%), Florida (12.84%), Connecticut (12.56%), Georgia (11.88%), North Carolina (11.06%), and Alaska (10.53%).

Those Fee inpatient encounters patients who are between *55 and 64 years of age* and live in R/HR/I areas of the nation account for 27.75% as a whole, but on the State level, many have higher concentrations of this particular age group than of older patients (aged 65 and older). The top 10 States/Territories reflecting this trend include: District of Columbia (100.0%), U.S. Virgin Islands (61.84%), South Carolina (35.57%), Georgia (35.11%), Mississippi (34.37%), Alabama (33.6%), Texas (33.26%), Florida (32.56%), Louisiana (31.54%), and North Carolina (30.95%).

The maps in the next series combine the two age groups together to portray a visual of those R/HR/I patients *aged 45 to 64* who had Fee inpatient encounters. These data are mapped at the State/Territory and county levels of aggregation. The denominator for the percentages is the number of all R/HR/I patients who had Fee inpatient encounters. The highest 25% in terms of volume and proportion is designated by the darkest shade of purple. Five of the U.S. States, as shown on Maps 51 and 52, had both a high volume and high proportion (in upper 25% quartile) of Fee inpatient encounters by those patients *aged 45 to 64*. Those were Alabama, Florida, Georgia, North Carolina, and Texas.



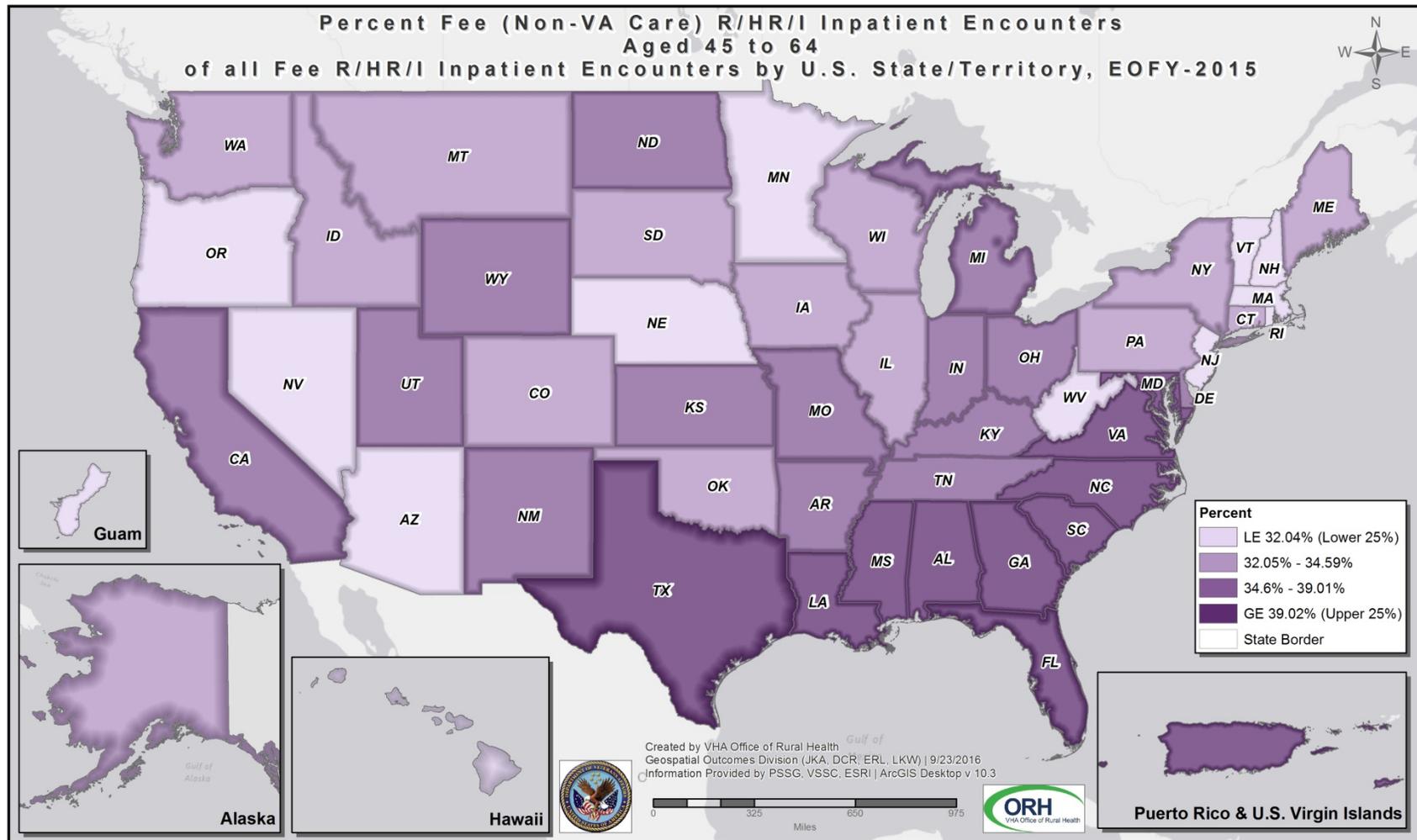
Map 51



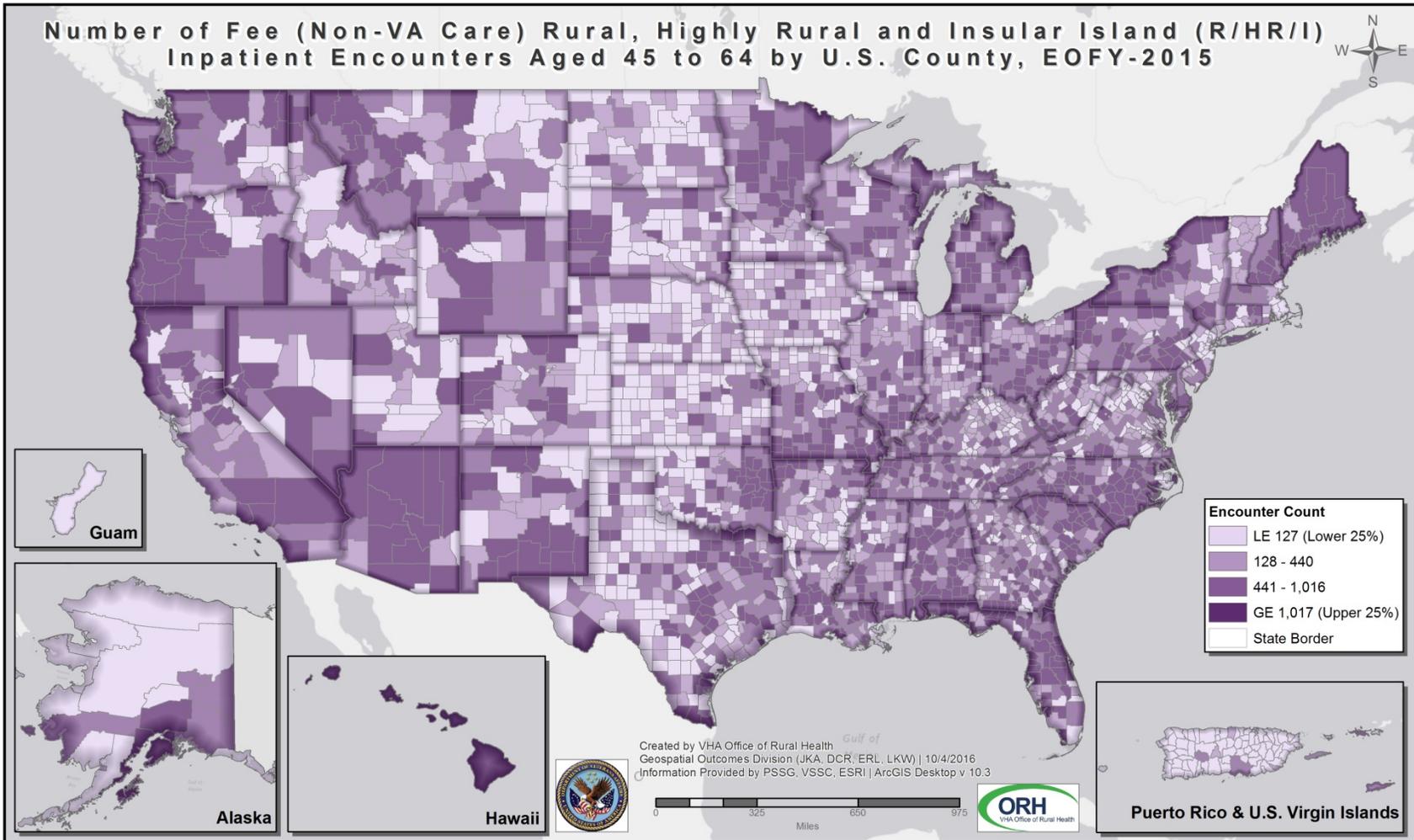
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 52



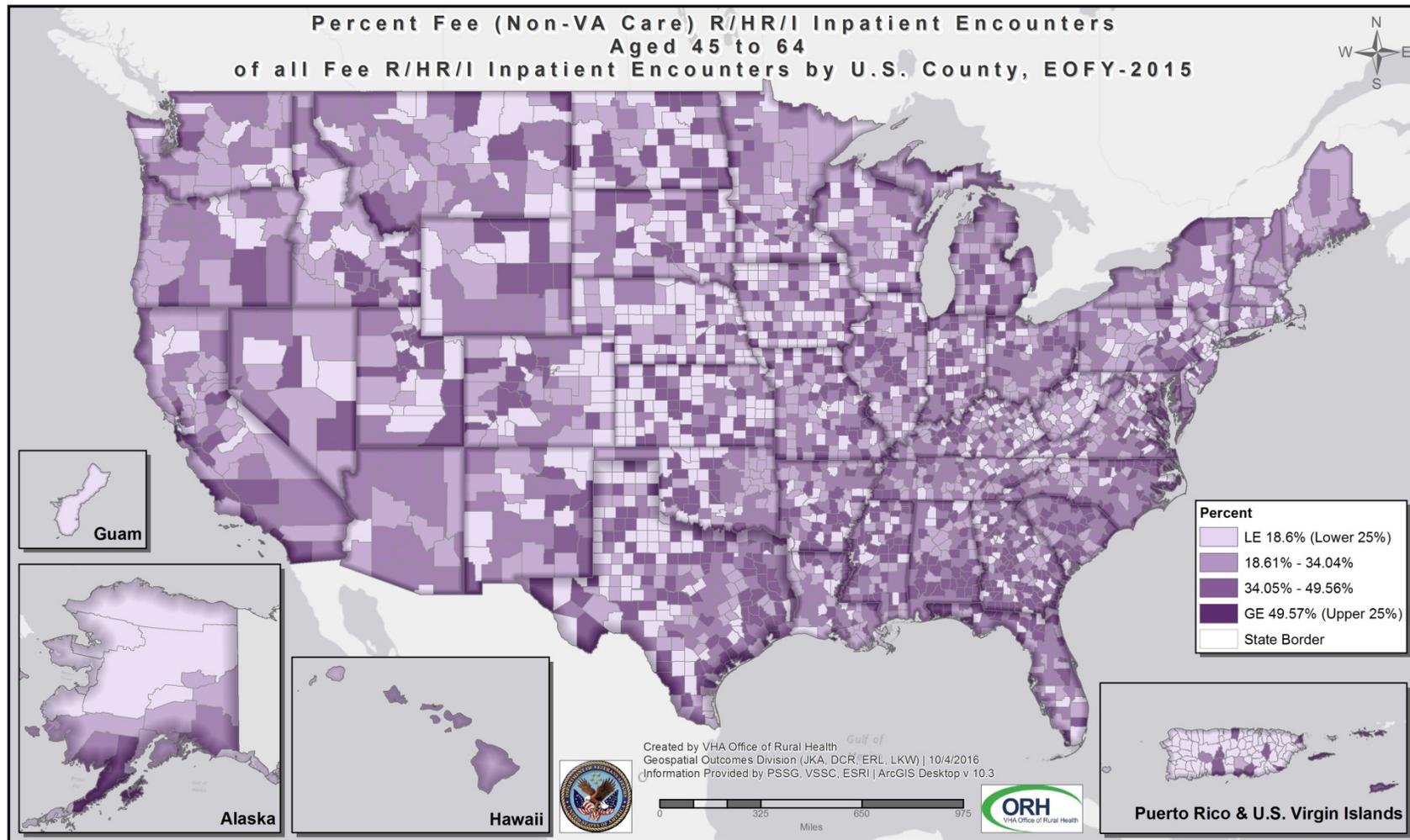
Map 53



Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 54



AGES 65 TO 74

On the national level, patients in R/HR/I areas *aged 65 to 74* who had Fee inpatient encounters comprised of more than one-third (39.11%) of the total number of Fee R/HR/I inpatient encounters, the highest of all age groups. On the State/Territory level, in Guam, all 399 R/HR/I Fee inpatient Encounters were by patients of these types *aged 65 to 74* (100.0%). Other States/Territories with the greatest percentages of these types of encounters by patients *aged 65 to 74*, which exceed the national overall percentage, included: Massachusetts (47.13%), West Virginia (46.43%), Arizona (45.95%), Michigan (45.19%), Washington (45.16%), Oregon (44.58%), Maine (44.3%), Minnesota (44.18%), and Delaware (44.03%).

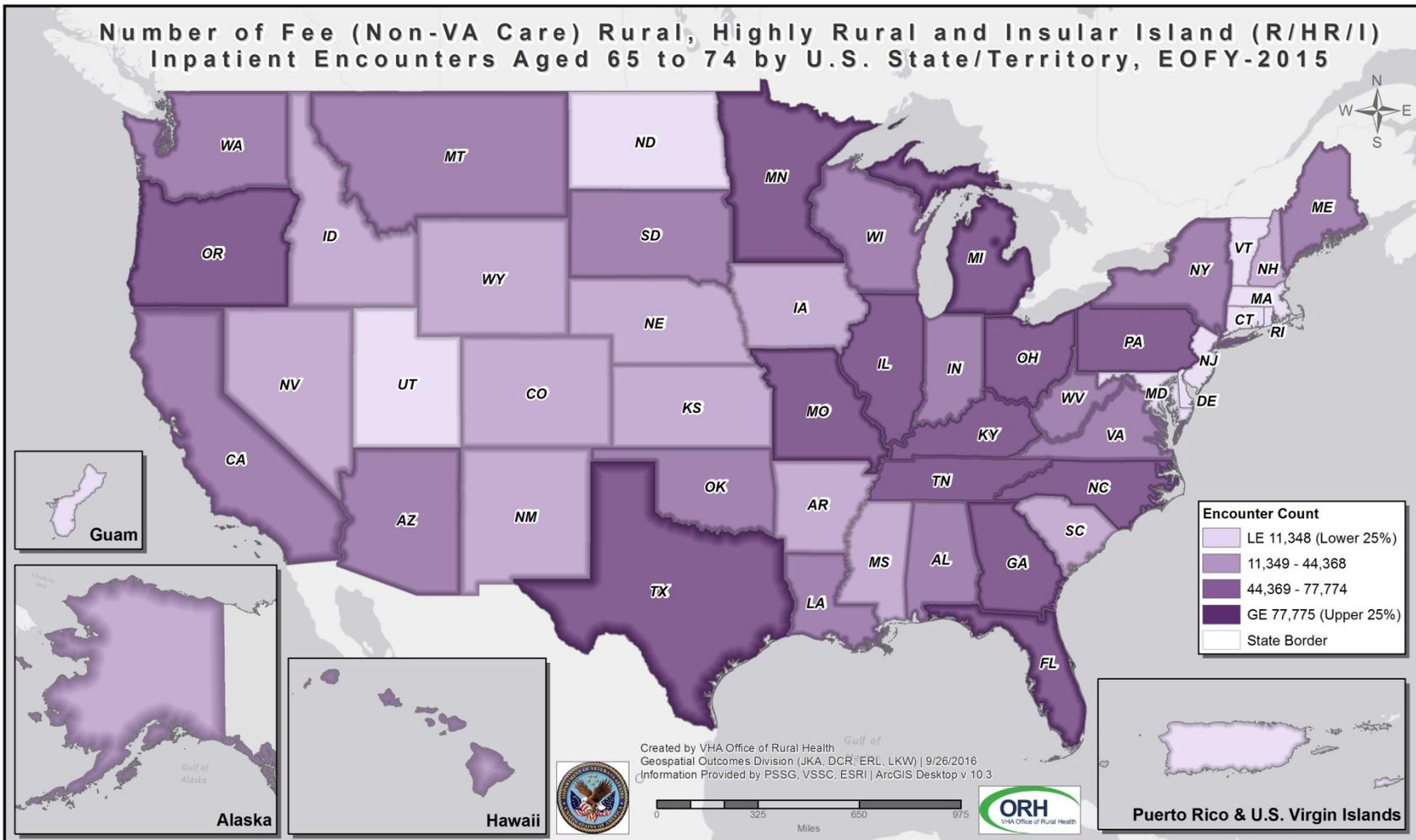
The maps in the next series focus on R/HR/I patients *aged 65 to 74* who had Fee inpatient encounters. These data are mapped at the State/Territory and county levels of aggregation. The denominator for the percentages is the number of all R/HR/I patients who had Fee inpatient encounters. The highest 25% in terms of volume and proportion is designated by the darkest shade of purple. Three of the U.S. States, as shown on Maps 55 and 56, had both a high volume and high proportion (in upper 25% quartile) of Fee inpatient encounters by those patients *aged 65 to 74*. Those were Maine, Michigan, and Oregon.



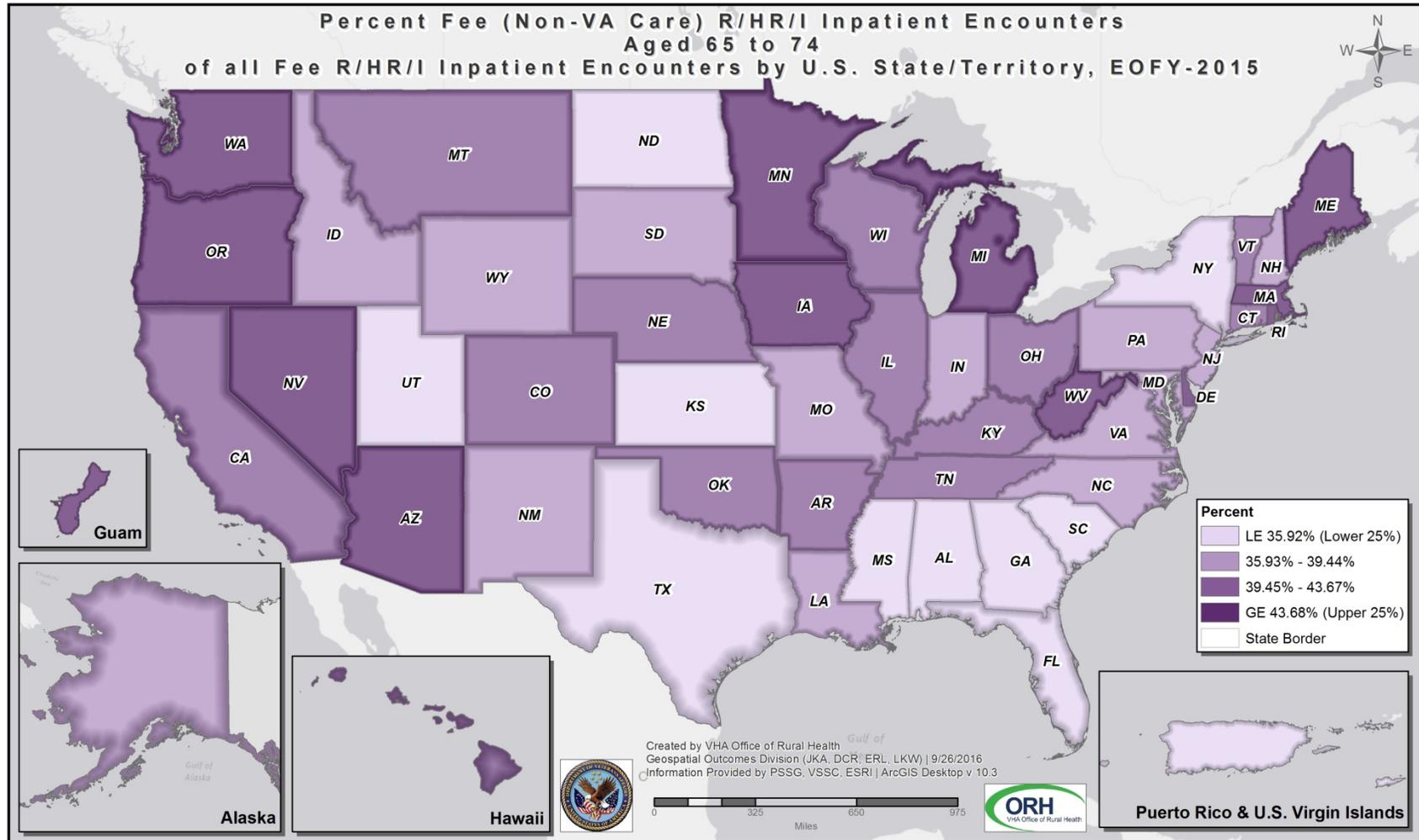
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 55



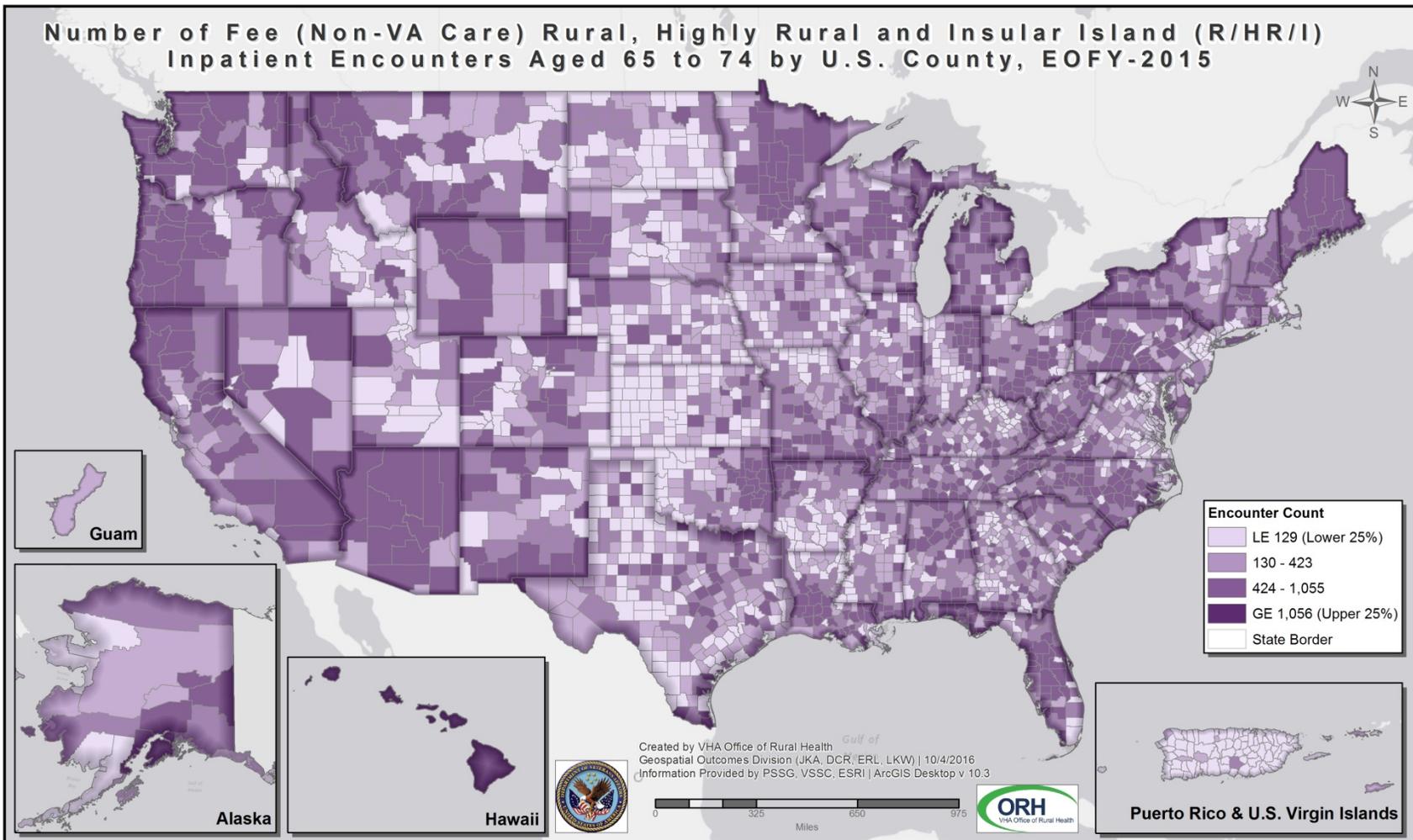
Map 56



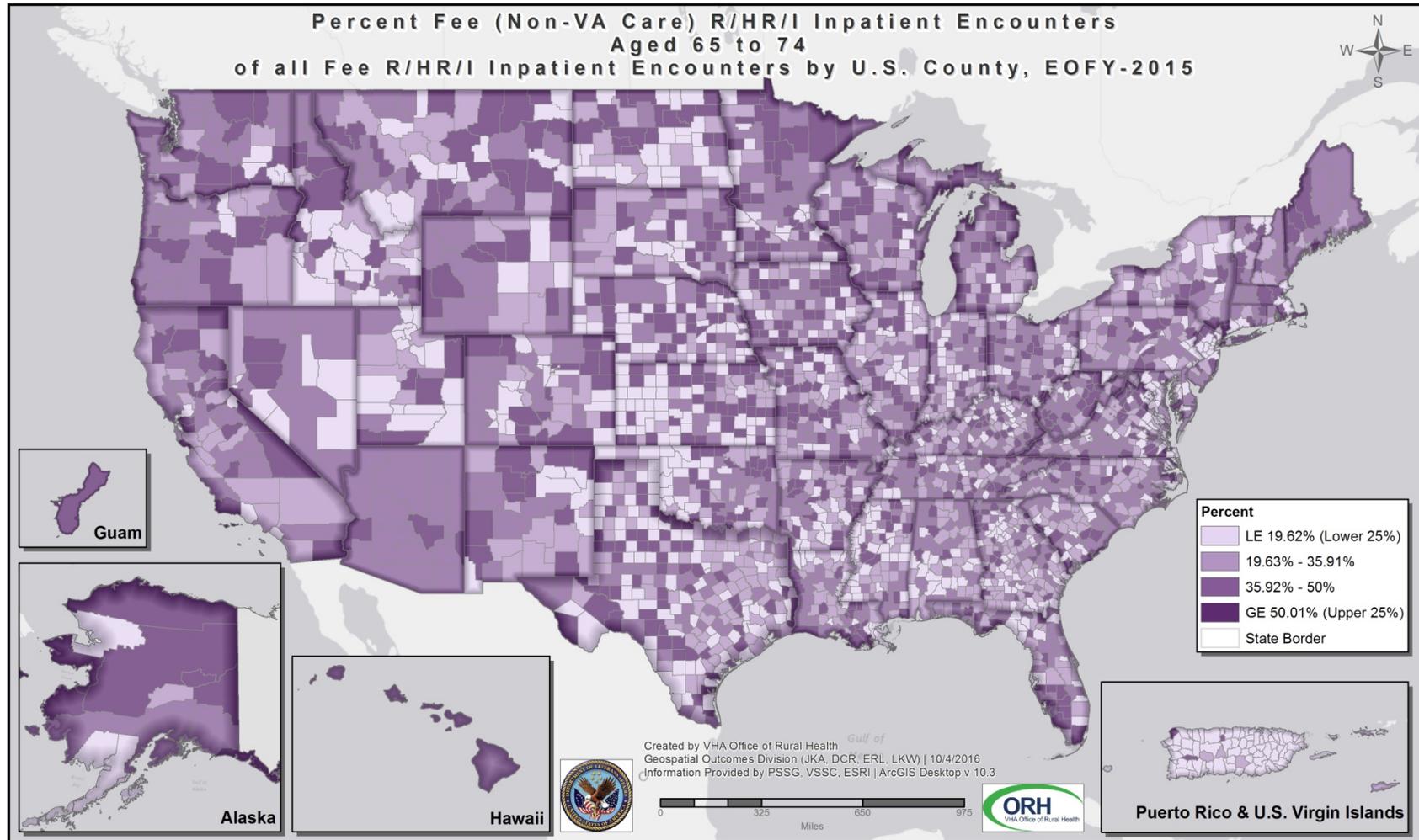
Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 57



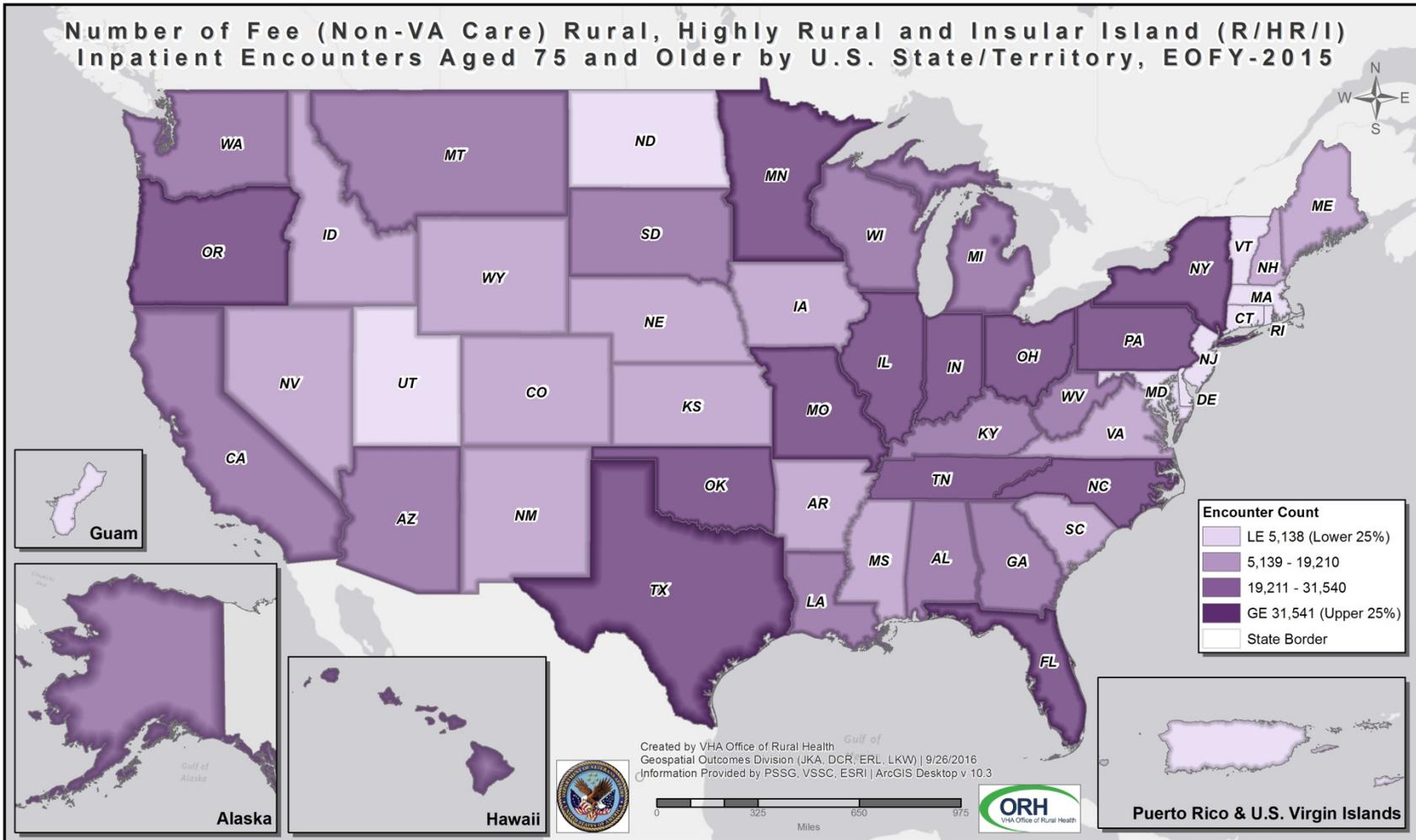
Map 58



AGED 75 AND OLDER

On the national level, Veteran patients in R/HR/I areas who were *aged 75 and older* and provided inpatient care by a non-VA facility or non-VA provider (Fee) comprised of about 15.68% of all Fee R/HR/I inpatient encounters. The top 10 States/Territories with the greatest percentage of Veteran patients in this age group, which exceed the national overall percentage included: Hawaii (30.87%), South Dakota (25.54%), Massachusetts (22.32%), Minnesota (21.69%), Nebraska (21.36%), Pennsylvania (20.59%), West Virginia (20.53%), Alaska (20.08%), Illinois (19.97%), and Idaho (19.71%).

The maps in the next series focus on R/HR/I patients *aged 75 and older* who had Fee inpatient encounters. These data are mapped at the State/Territory and county levels of aggregation. The denominator for the percentages is the number of all R/HR/I patients who had Fee inpatient encounters. In Maps 59 and 60, displayed by State, data are divided into four equally statistical classes, with the highest 25% in terms of volume and percentage are designated by the darkest shade of purple. Four U.S. States showed both a high volume and high proportion (in upper 25% quartile) of Fee inpatient encounters by those patients *aged 75 and older*. Those were Illinois, Minnesota, Oklahoma, and Pennsylvania. The county level maps 61 and 62 divided the data into two classes because more than one-third of counties had zero Fee inpatient encounters by those patients *aged 75 and older*. Therefore, in an effort to protect confidentiality of patients, the county maps were generated to display the highest one-half in terms of volume and percentage, designated by the darkest shade of purple.



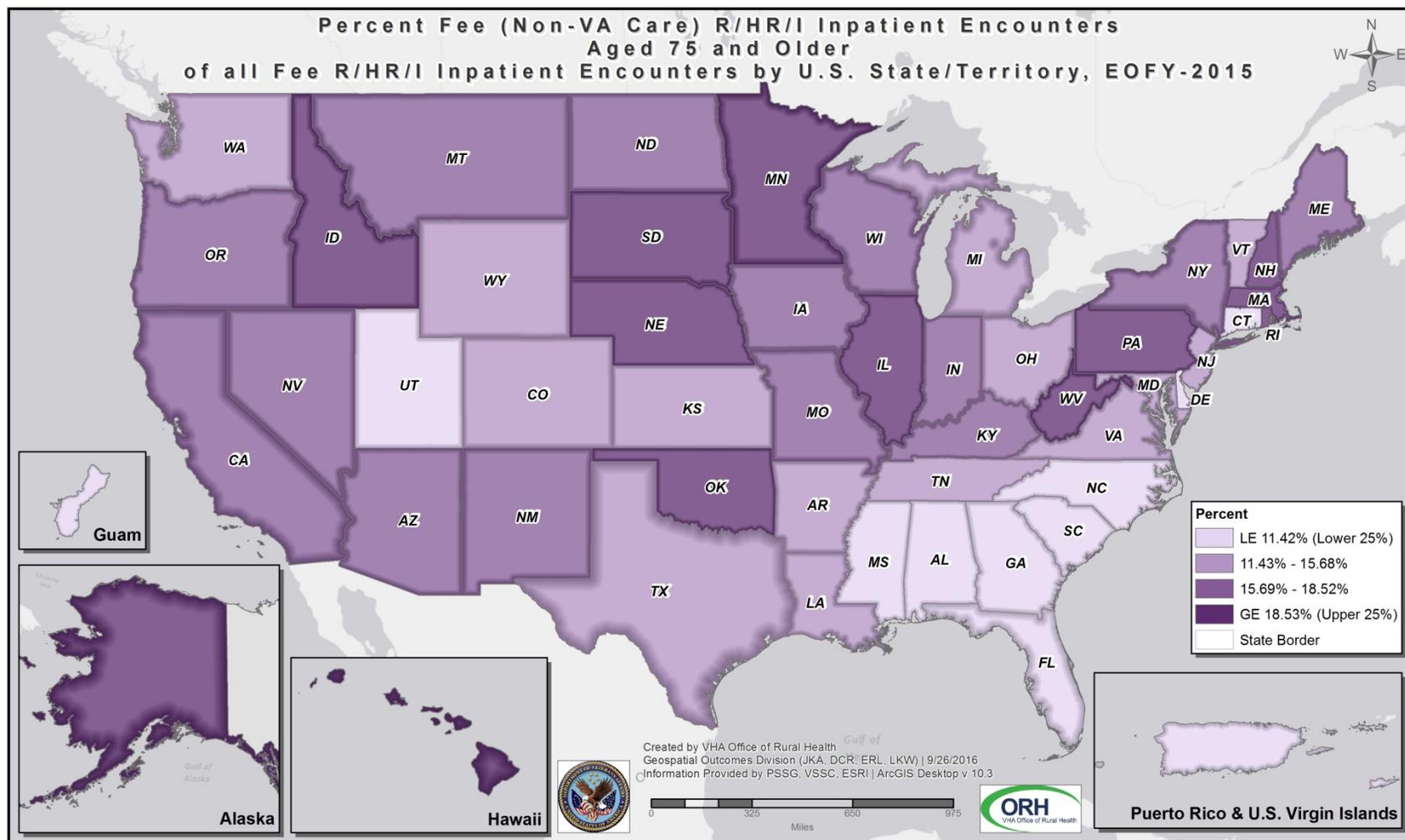
Map 59



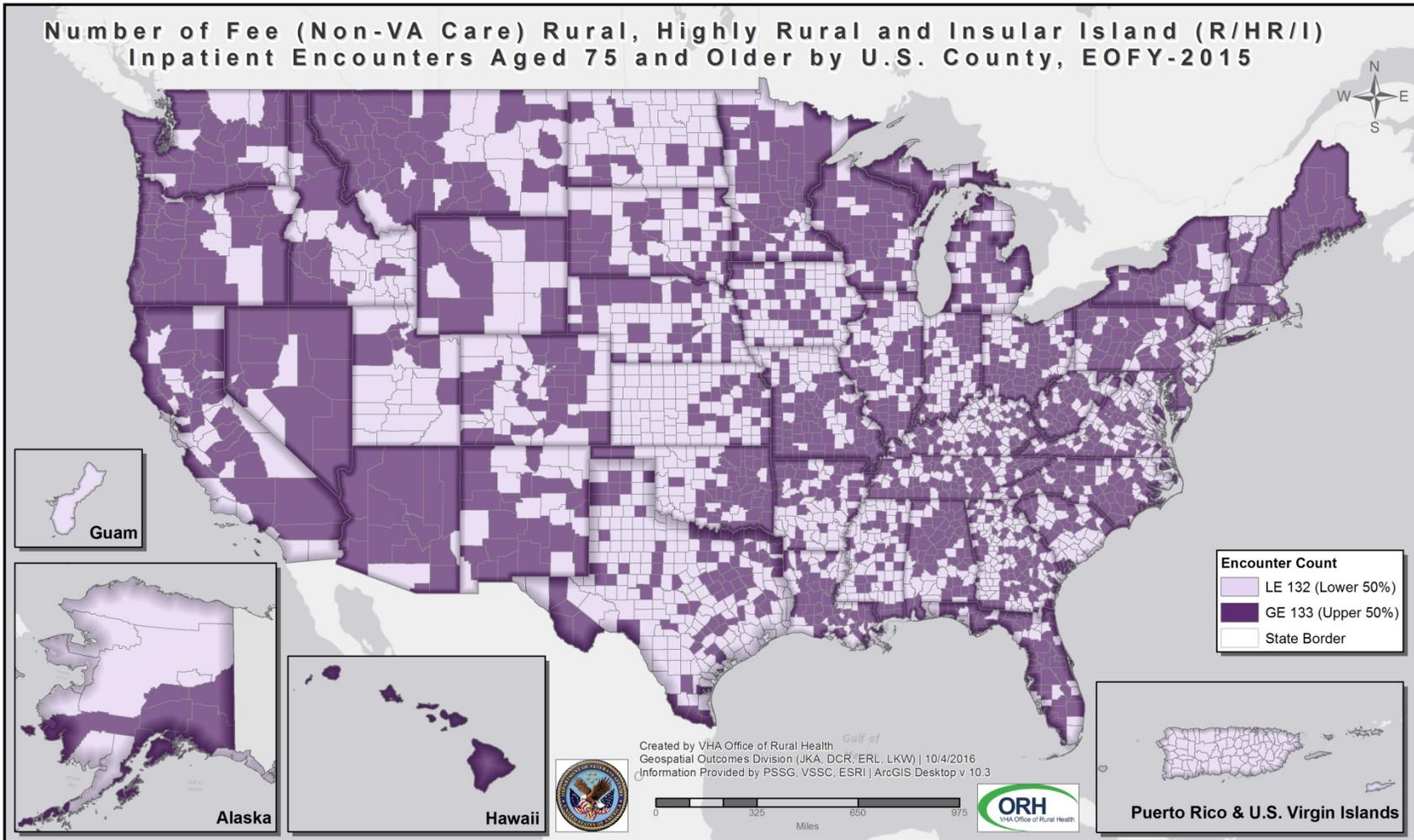
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Map 60



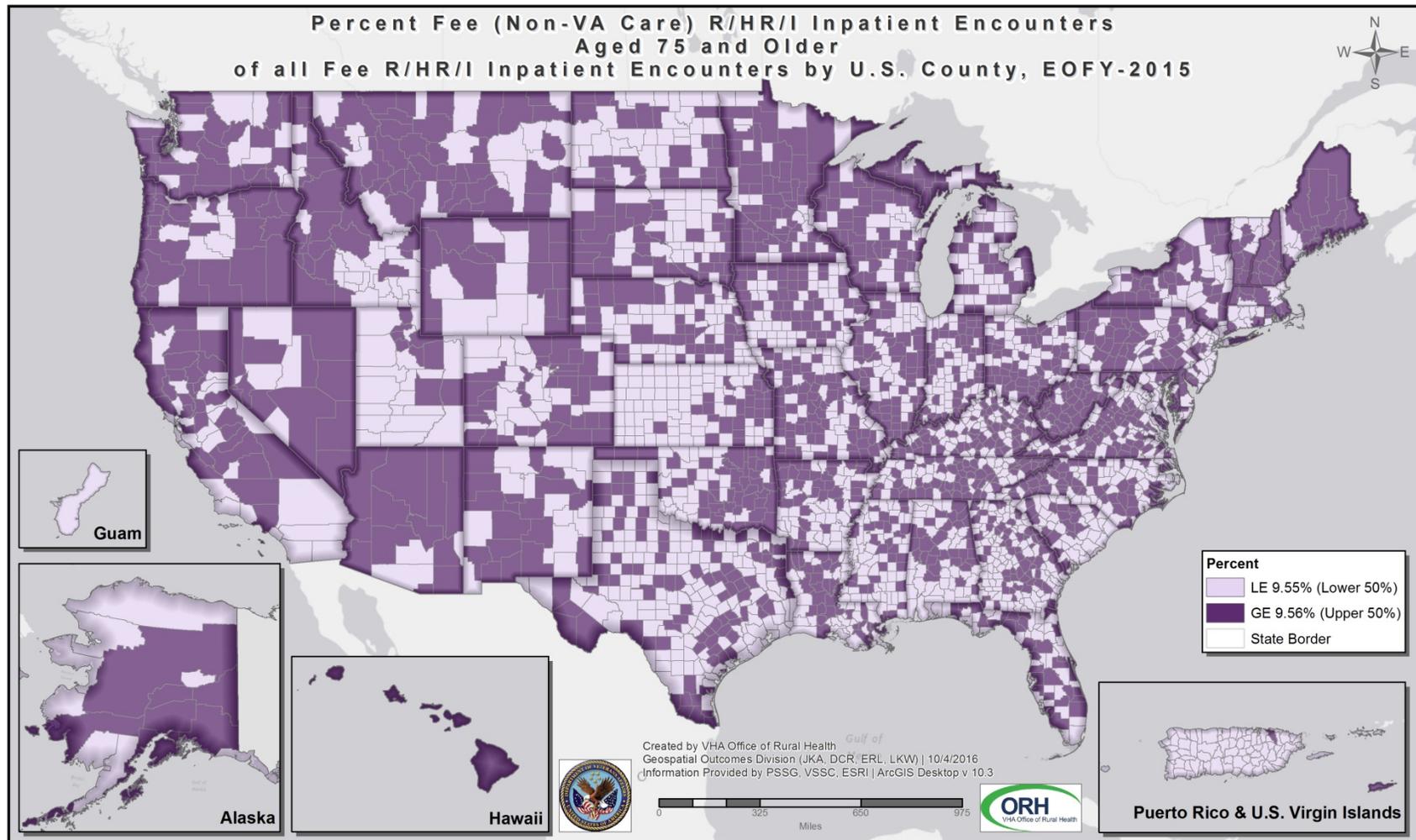
Map 61



Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 62



RACE

Data highlighting Veteran patients of various racial groups residing in R/HR/I areas and their inpatient encounters at non-VA medical facilities or by non-VA providers (Fee) are summarized in this section. Nationally, most encounters (86.46%) were by patients who were White or Caucasian, while the same types of encounters by Blacks/African Americans comprised of 9.01%. A small percentage of those patients in the 'Other' category- including Asians, Native Hawaiians/Pacific Islanders, Alaska Natives/Native Americans, or those patients who identified as multiple races- constituted about 4.53% of the total number of Fee R/HR/I inpatient encounters. Race was missing on about 5.15% of the Fee R/HR/I inpatient encounters.

Therefore, the series of maps that follow show the numbers of Fee inpatient encounters by White R/HR/I patients (numerator) divided by total number of Fee R/HR/I inpatient encounters of all patients whose race was known (denominator). Maps 63 and 64 are displayed at the State level by the lowest 25% (or quartile) in terms of volume and proportion, which are designated by the lightest shade of purple. These areas convey a lower White population, and therefore areas with a higher concentration of minority groups. The bottom 10 States/Territories with the lowest percentage of Fee inpatient encounters by White/Caucasian patients (in ascending order) included: U.S. Virgin Islands (39.84%), Hawaii (56.11%), Maryland (59.61%), Mississippi (60.88%), South Carolina (61.17%), Louisiana (61.37%), Alabama (67.43%), Georgia (67.47%), North Carolina (69.57%), and Virginia (77.43%). County Maps 65 and 66 graphically display Fee R/HR/I inpatient encounters- first the volume data by four classes (quartiles), then percentage data by two classes, due to nearly half of U.S. counties with a rate of 100% Fee R/HR/I inpatient encounters by White patients.



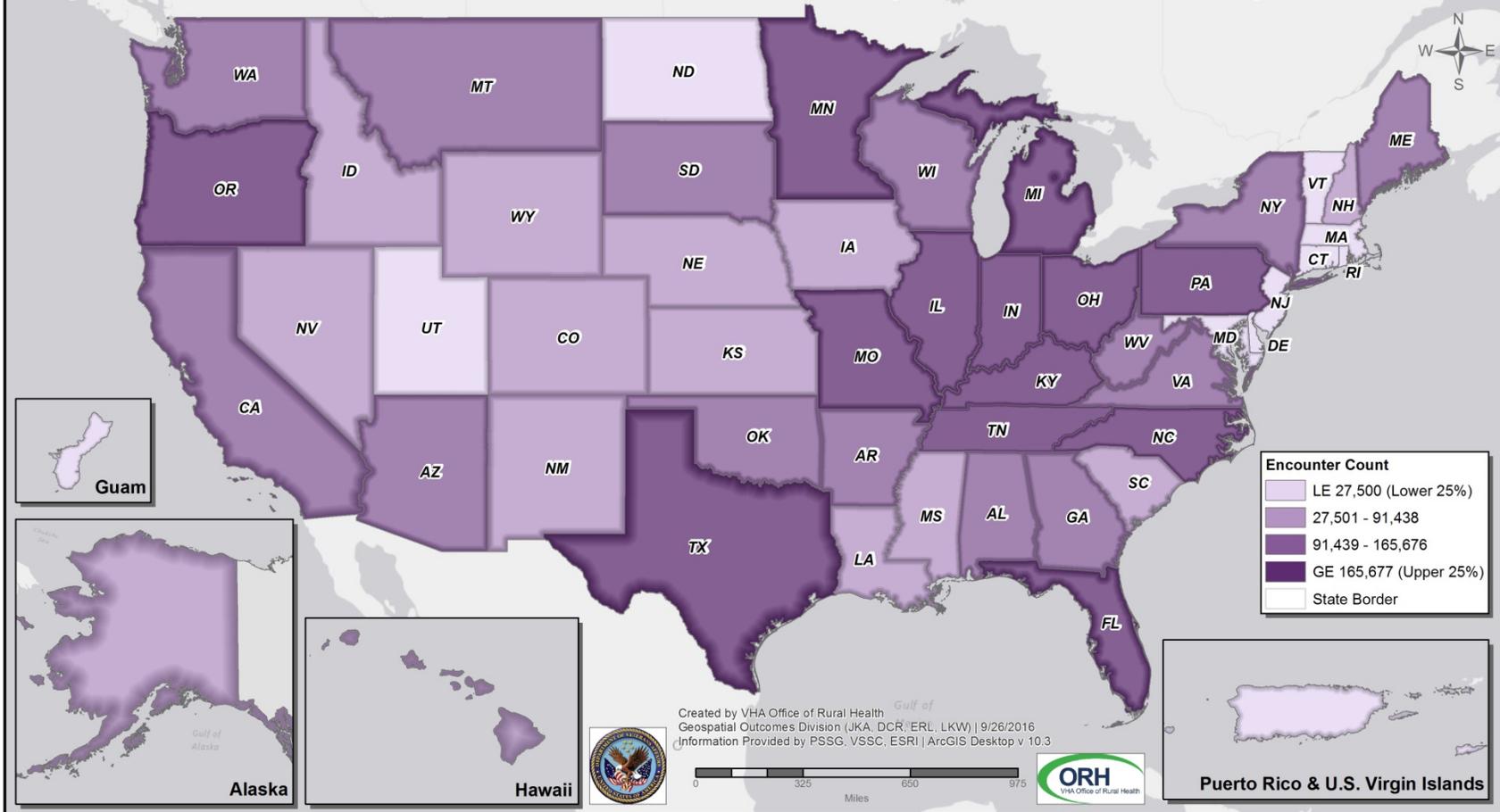
Health Services Utilization By Rural Veterans (Inpatient Encounters)



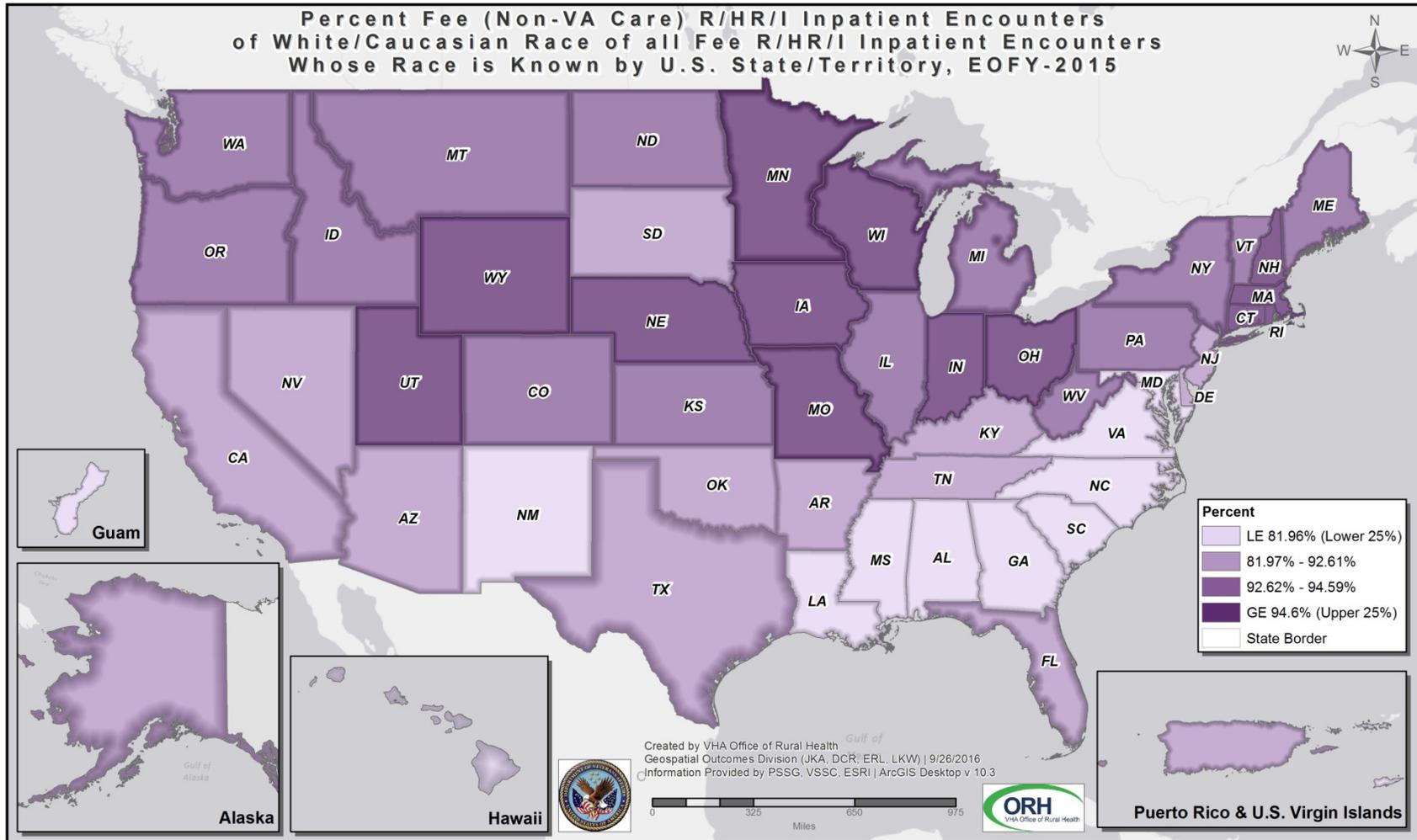
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Number of Fee (Non-VA Care) Rural, Highly Rural and Insular Island (R/HR/I) Inpatient Encounters of White/Caucasian Race by U.S. State/Territory, EOFY-2015



Map 63



Map 64



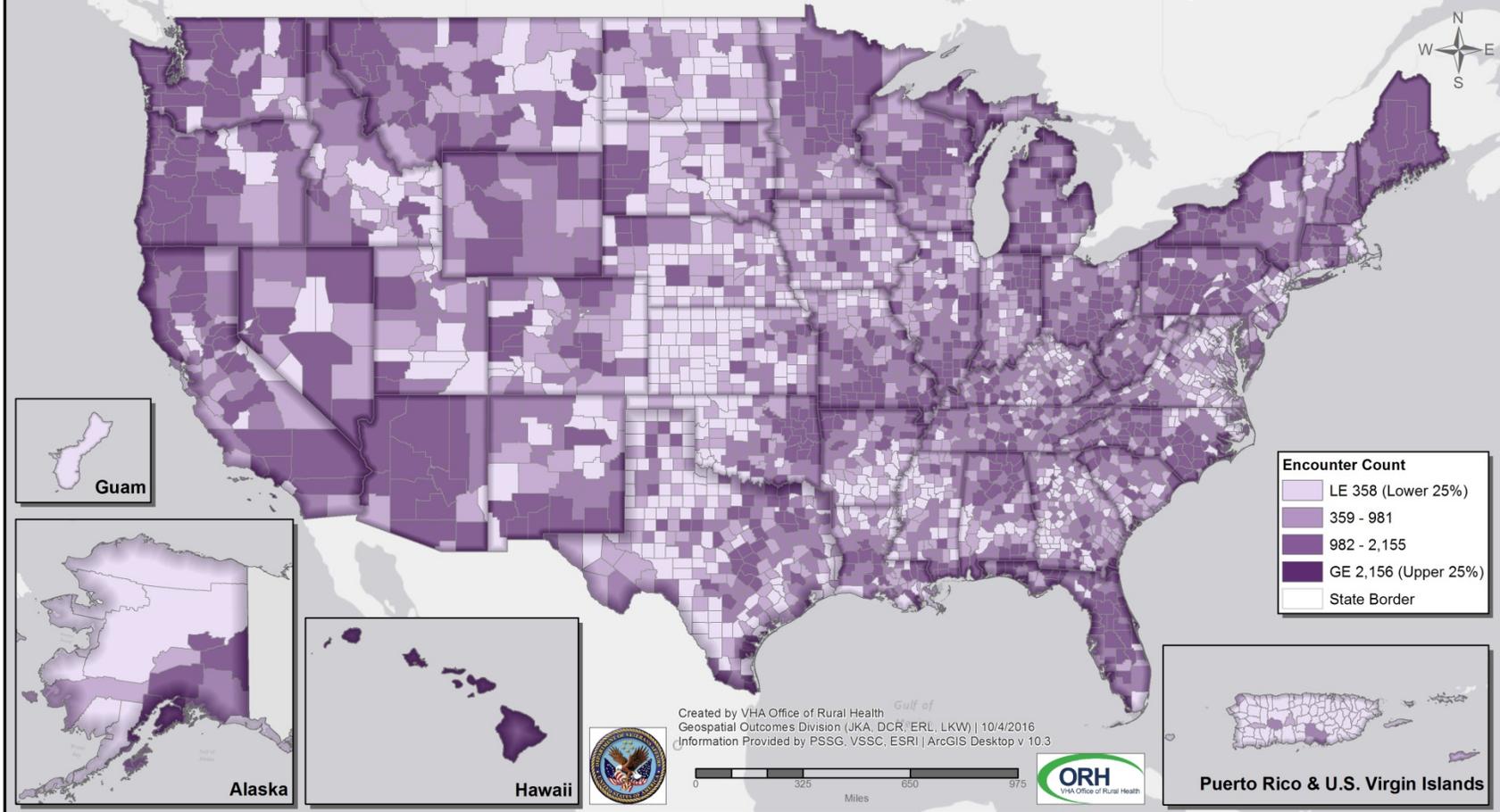
Health Services Utilization By Rural Veterans (Inpatient Encounters)



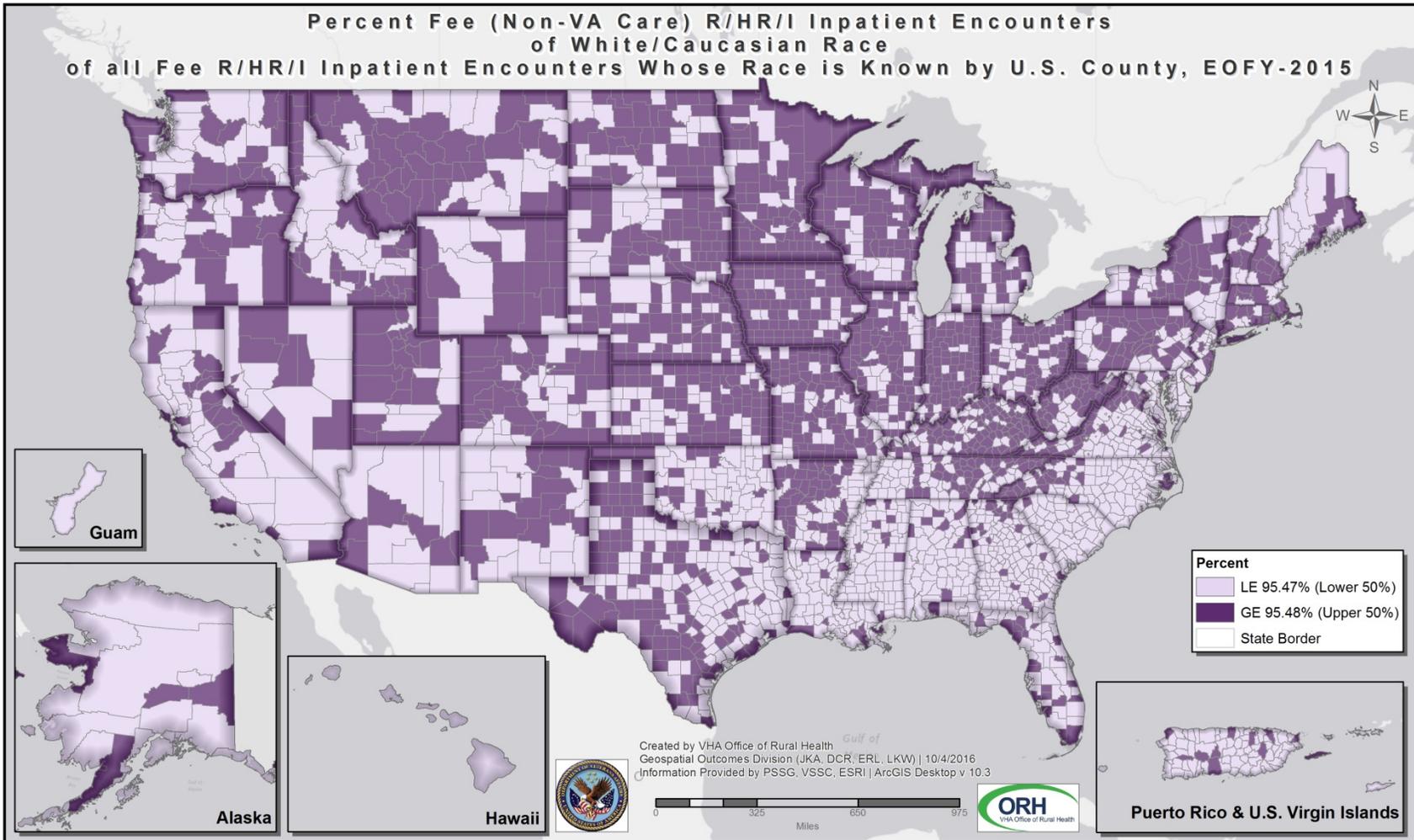
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VHA Office of Rural Health



Number of Fee (Non-VA Care) Rural, Highly Rural and Insular Island (R/HR/I) Inpatient Encounters of White/Caucasian Race by U.S. County, EOFY-2015



Map 65



Map 66



Health Services Utilization By Rural Veterans (Inpatient Encounters)



GeoSpatial
Outcomes Division
VHA Office of Rural Health



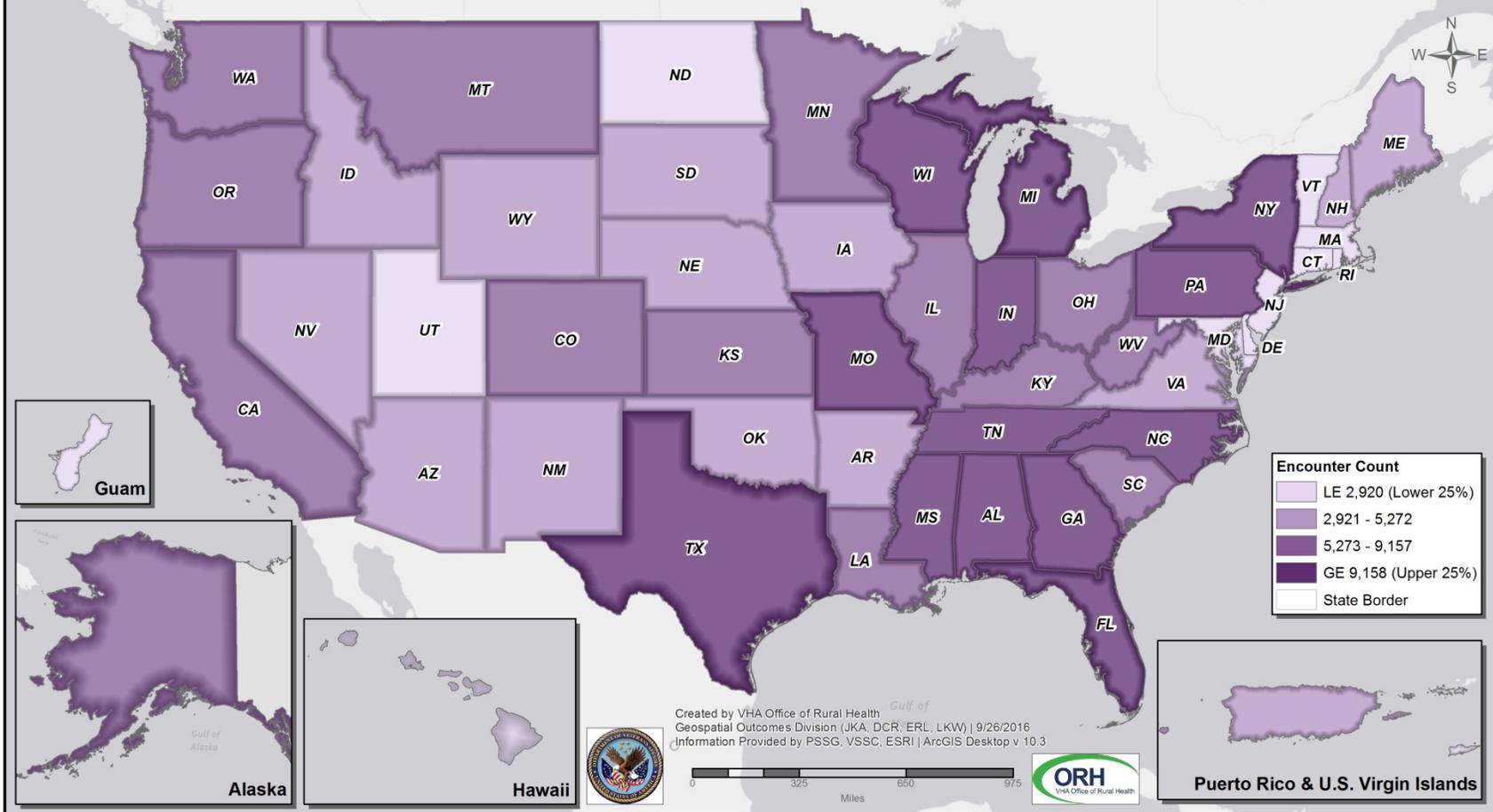
SERVICE ERA

Military service members who 1) were discharged from service during the OEF/OIF/OND era, 2) are enrolled in VHA but sought or received inpatient health care services by non-VA providers or non-VA medical facilities (Fee), and 3) reside in R/HR/I areas are examined in this section. Nationally, as of EOFY-2015, only about 5.27% of all Fee inpatient encounters were by those particular R/HR/I patients who served in the OEF/OIF/OND era. On the State/Territory level, the Top 10 (in rank order) included: Puerto Rico (37.89%), Rhode Island (15.64%), New Jersey (10.82%), Utah (10.22%), Vermont (9.58%), Connecticut (9.29%), New Hampshire (9.13%), Alabama (9.12%), Colorado (7.48%), and Mississippi (7.34%).

Map 67 and 68 portray the numbers and percentages of Fee inpatient encounters by patients who previously served in OEF/OIF/OND (numerator) of all Fee inpatient encounters (denominator). The highest 25% in terms of volume and proportion is designated by the darkest shade of purple. Alabama, Mississippi, and New York were the three U.S. States that had both a high volume and high proportion (in upper 25% quartile) of Fee inpatient encounters by those patients who served in the OEF/OIF/OND Era. Because of very low numbers of these types of encounters at the County level of aggregation, maps by County were not generated to protect patient confidentiality.



Number of Fee (Non-VA Care) Rural, Highly Rural and Insular Island (R/HR/I) Inpatient Encounters Served in OEF/OIF/OND Era by U.S. State/Territory, EOFY-2015



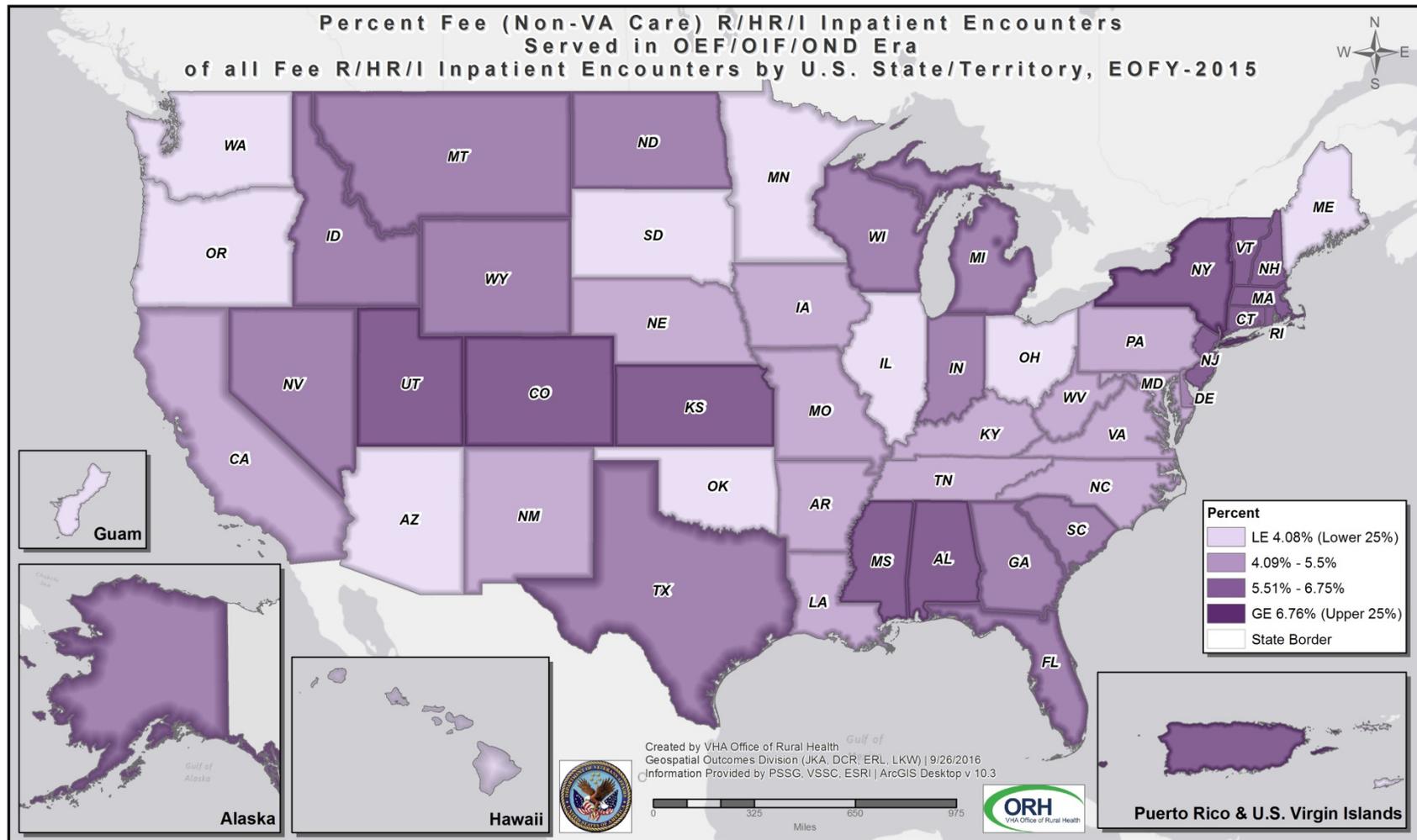
Map 67



Health Services Utilization By Rural Veterans (Inpatient Encounters)



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Map 68



References

1) Diagnosis Cube (Inpatient/Inpatient/Fee) Data Definitions:

[Diagnosis Cube Data Definitions](#)

NOTE: This is an internal VA website and is not accessible to the public.

For more information or inquires and requests regarding geospatial products and services, please contact:

GeoSpatial Outcomes Division
VHA Office of Rural Health
1601 SW Archer Road, 151-B
Gainesville, FL 32608-1197
VHA10P1RORHGSOD@va.gov

Diane Cowper Ripley, PhD
Director

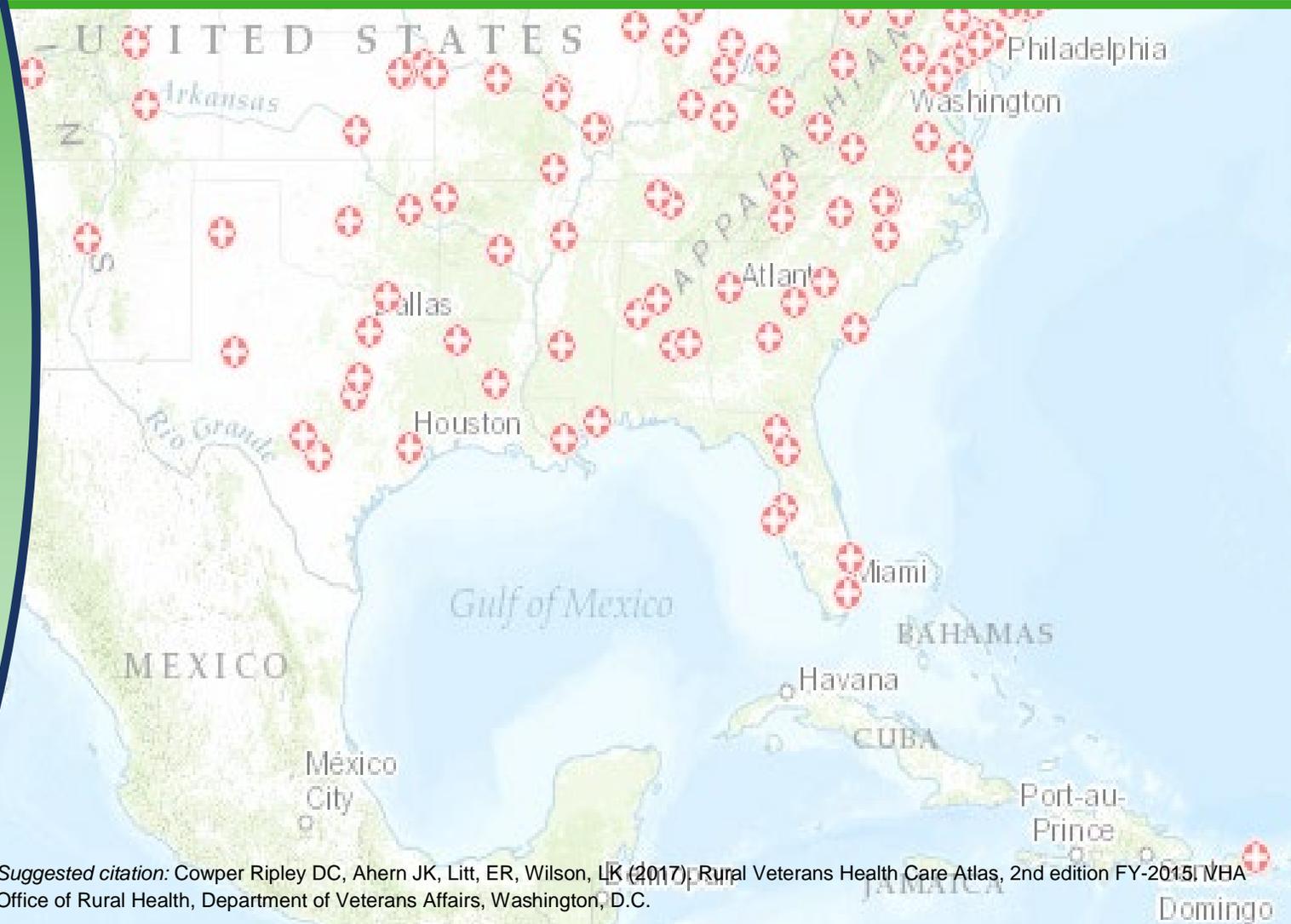
Justin K. Ahern
GIS Analyst

Eric R. Litt
GIS Analyst

Lauren K. Wilson
Program Coordinator/GIS Analyst

**High-resolution versions of the maps featured in this Atlas are available upon request by contacting the GSOD Team.*

The Rural Veterans Health Care Atlas, 2nd edition aims to collect, compile, and disseminate information on health care access and delivery for the rural Veteran Enrollee and patient population. It builds on the first edition and represents information as of end of FY-2015 for VA health care facilities, outpatient and inpatient utilization in rural, highly rural, and insular island areas in all States/Territories and counties in the United States. Additionally, this second edition analyzes hospital bed occupancy and average daily census data at VA health care facilities. This second edition represents the beginning stages of many critical changes in the organization. The robust and valuable data from this atlas and future editions show evidence of improvement of health care resources for the Veteran Enrollee and patient population within the dynamic landscape of the VHA health care system



Suggested citation: Cowper Ripley DC, Ahern JK, Litt, ER, Wilson, LK (2017). Rural Veterans Health Care Atlas, 2nd edition FY-2015. VHA Office of Rural Health, Department of Veterans Affairs, Washington, D.C.

